Order No. MD0002012C2

Service Manual

Portable Stereo CD System

COMPACT disc DIGITAL AUDIO

RX-D11

Color

(G) ... Green Type
(W) ... White Type

E ... Europe
EB ... Great Britain
EG ... Germany and Italy

Tape Deck: SG20 Mechanism Series
Traverse Deck: RAE0152Z-M Mechanism Series

■ RADIO

Frequency Range	
AM	522-1629 kHz (9 kHz steps)
FM	87.5-108.0 MHz (50 kHz steps)
Intermediate Frequency	
AM	459 kHz
FM	10.7 MHz
Sensitivity	
AM	40 dB/m/50 mW
FM	19 dB/50 mW

■ TAPE RECORDER

Track System	4 track, 2 channel, stereo
Recording system	AC bias
Erasing system	Multi pole magnet
Monitor system	Variable sound monitor
Frequency range	
Normal position	50 Hz ~ 12 kHz

■ CD PLAYER

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser (wavelength 780 nm)
No. of channels	2 channel, stereo
Wow and flutter	Less than possible measurement data
D/A converter	MASH (1 bit DAC)

■ GENERAL

Power Requirement	
AC	230~240 V, 50 Hz
Battery	9 V (six R20/LR20, D, UM-1 batteries)
Power Consumption	11 W
Memory backup	3 V (two R6/LR6, AA, UM-3 batteries)
Speakers	10 cm 4Ω x 2
Jacks	
Output	
Phones	3.5 mm stereo (32Ω)
Dimensions (W x H x D)	460 x 168 x 268 mm
Weight	About 3.2 kg without batteries

Notes:

1. Weights and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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1 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C120, C220, C317, C340 through a 10 Ω, 5 W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid over current.

Current consumption at AC 230 V, 240 V, 50 Hz in NO SIGNAL mode should be ~45 mA.

2 Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

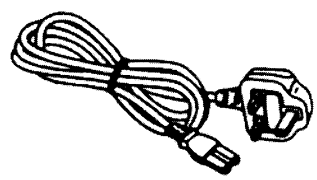
If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

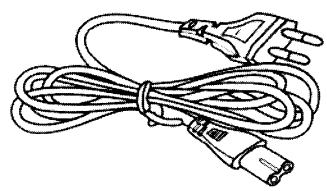
Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

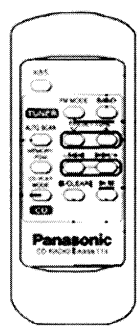
3 Accessories



AC Power Supply (EB).....1 pc



AC Power Supply (E/EG).....1 pc



Remote Control.....1 pc

4 Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

- **Handling of traverse deck (optical pickup)**
  1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
  2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).
  3. Take care not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
  4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

- **Grounding for electrostatic breakdown prevention**
  1. Human body grounding

     Use the anti-static wrist strap to discharge the static electricity from your body.
  2. Work table grounding.

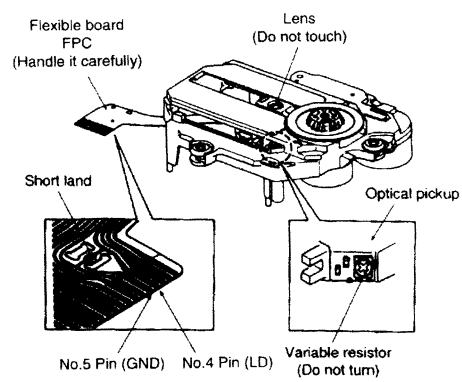
     Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

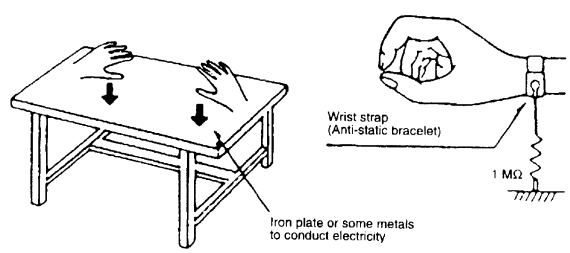
Caution:

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

Caution when replacing the Traverse Deck

The traverse deck has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.





5 Precaution of Laser Diode

CAUTION:

This product utilizes a laser diode with the unit truned "ON", invisible laser radiation is emitted from the pick up lens.
Wavelength : 780 nm
Maximum output radiation power from pick up : 100μW/VDE
Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode. Im enigeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.
Wellenlänge : 780nm
Maximale Strahlungsleistung der Lasereinheit : 100μW/VDE
Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

ADVARSEL: I dette a apparat anvendes laser.

CAUTION!

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

6 Use of Caution Labels.

7 Caution for AC Mains Lead

(For "EB" area code model only.)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OFF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

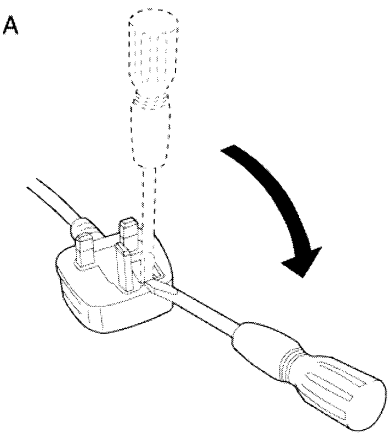
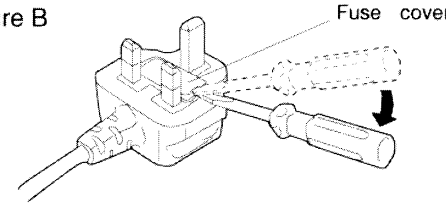


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

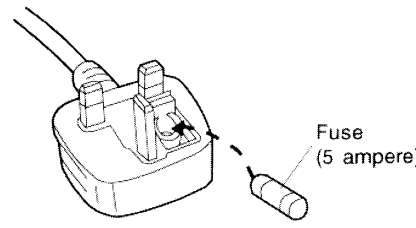
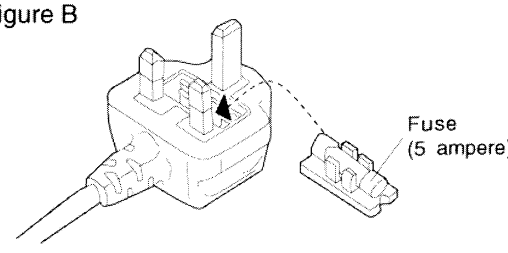
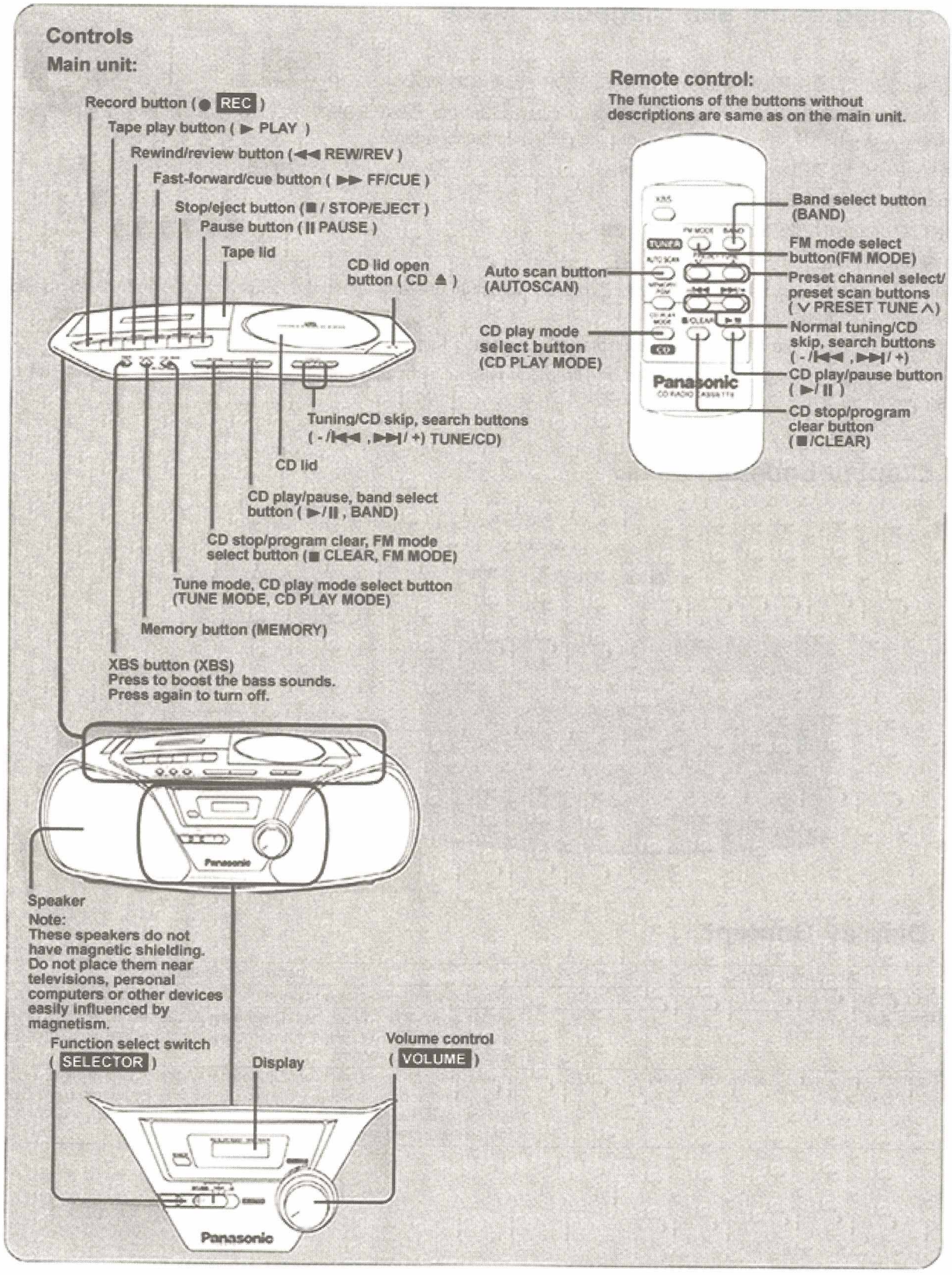


Figure B



8 Controls


Controls
Main unit:
Record button (● REC)
Tape play button (► PLAY)
Rewind/review button (◄◄ REW/REV)
Fast-forward/cue button (►► FF/CUE)
Stop/eject button (■ / STOP/EJECT)
Pause button (II PAUSE)
Tape lid
CD lid open button (CD ▲)
Tuning/CD skip, search buttons (-/I◄◄ , ►►I/ +) TUNE/CD)
CD lid
CD play/pause, band select button (►/II , BAND)
CD stop/program clear, FM mode select button (■ CLEAR, FM MODE)
Tune mode, CD play mode select button (TUNE MODE, CD PLAY MODE)
Memory button (MEMORY)
XBS button (XBS)
Press to boost the bass sounds.
Press again to turn off.
Speaker
Note:
These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
Function select switch (SELECTOR)
Display
Volume control (VOLUME)
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Remote control:
The functions of the buttons without descriptions are same as on the main unit.
Band select button (BAND)
FM mode select button(FM MODE)
Auto scan button (AUTOSCAN)
Preset channel select/ preset scan buttons (∨ PRESET TUNE ∧)
CD play mode select button (CD PLAY MODE)
Normal tuning/CD skip, search buttons (-/I◄◄ , ►►I/ +)
CD play/pause button (►/ II)
CD stop/program clear button (■ /CLEAR)
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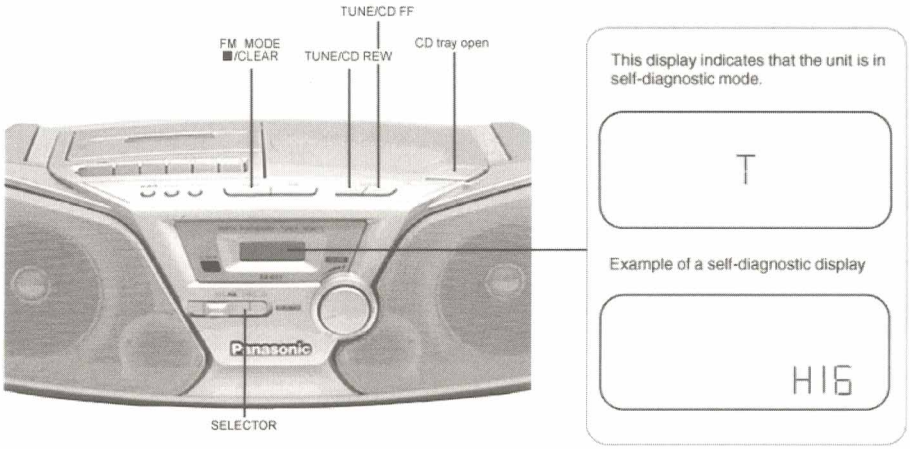
9 Self-Diagnostic Functions

9.1. Setting of the Self-Diagnostic Mode

1. Switch the SELECTOR to CD and set to TAPE STOP state. (CD PLAY→STOP)
2. Press the ■/CLEAR for the first two seconds and followed by the FAST FORWARD keys for another two seconds without releasing the ■/CLEAR key, it shall enter into the Self-Diagnostic mode.
3. At the state of [T] display, operate as follows:
   - Open the CD lid and close it right away.
   - Start recording TAPE, and STOP it at once.
4. Press ■/CLEAR key.
   - Self diagnostic results, i.e. the memorized errors during actual operations and the result of above-mentioned operation shall be displayed alternately.
   - If there is no error, the aforementioned display [T], shall be kept.
   - If the operation in the above mentioned in 4 is made without executing the procedure in 3, [H16] and [F69] shall be displayed.

9.2. Display Location



9.3. Display Content

No.	Abnormal Items	Error Display	Method of detection
1	CLOSE SW abnormal	H16	Detect error during closing operation and memorised it as an error.
2	REST SW abnormal	F15	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the REST SW ON is not detected within the specified time (5000 ms) and shall be memorised.
3	Transmission error between CD servo LSI and micon	F26	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the selection is set to CD and SENSE ='H' is detected and SENSE ='L' is not detected within a fail-safe time (20 ms) after system command transmission was sent.

10 Operation Checks and Main Component Replacement Procedures.

"ATTENTION SERVICER"

Some chassis components maybe have sharp edges. Be careful when diassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.
   Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer the Parts No. on the page of "Main component Replacement Procedures", if necessary.

Content

- **Checking Procedure for each major P.C.B.**
  1. Checking for the Main, Panel1, Panel2 & Speaker Terminal P.C.B ..... P.g. 9 ~ 10
  2. Checking for the CD Servo P.C.B ..... P.g. 10

- **Main Component Replacement Procedures**
  1. Replacement of the Traverse Deck P.g.11
  2. Installation of the CD Servo P.C.B. after Replacement P.g.12

Warning:

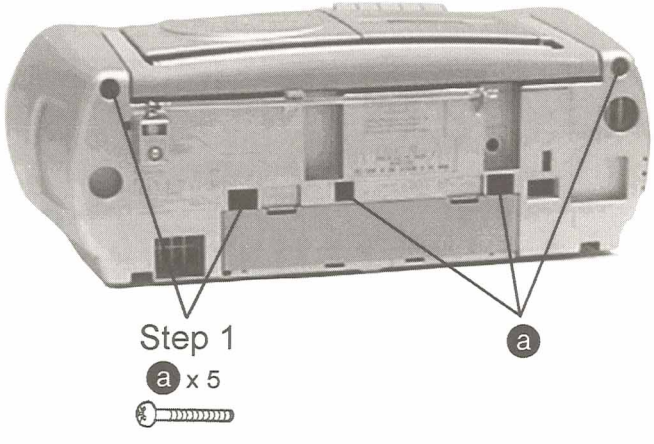
This product uses a laser diode. Refer to P.5.

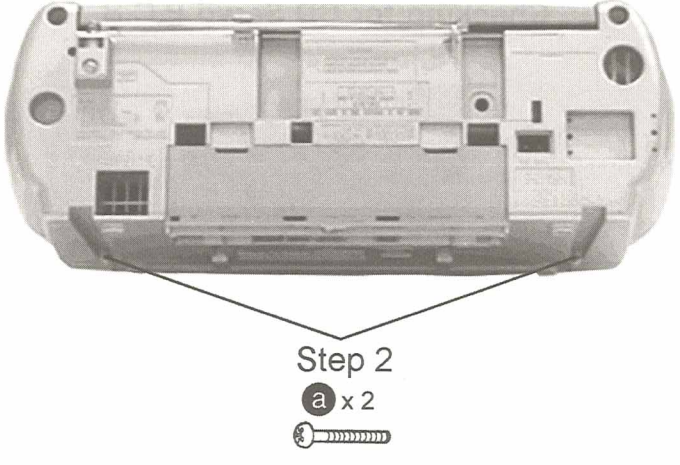
ACHTUNG:

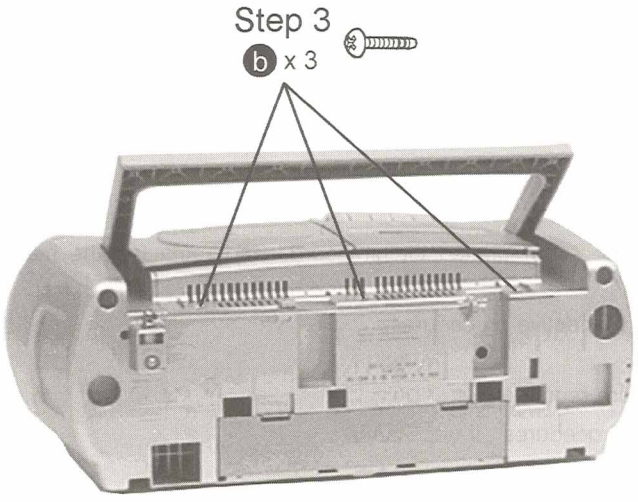
Die Lasereinheit nicht zerlegen.
Die Lasereinheit darf nur gegen eine vom Hertsteller spezifizierte Einheit ausgetauscht werden.

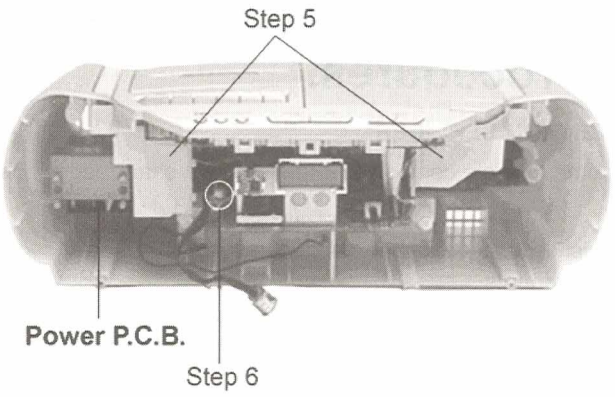
10.1. Checking Procedure for each major P.C.B.

10.1.1. Checking for the Main, Panel1, Panel2 & Speaker Terminal P.C.B

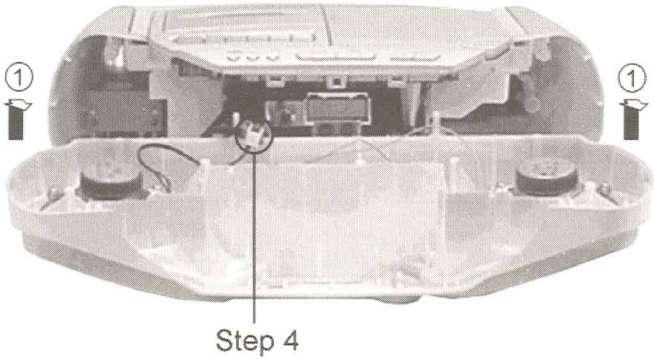




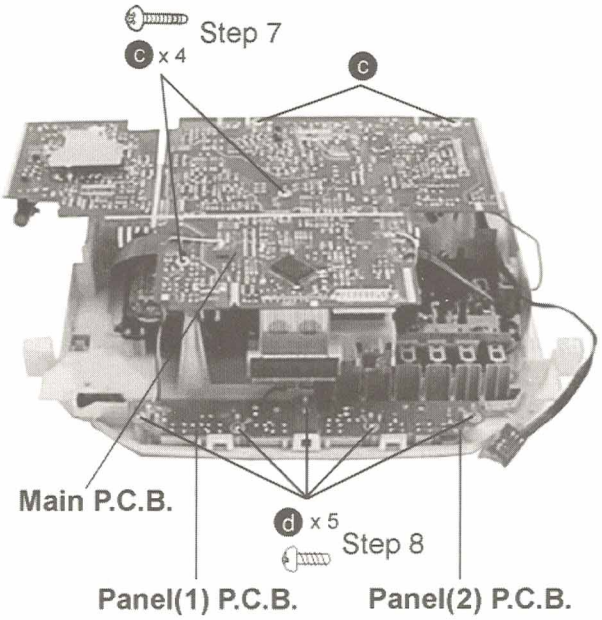




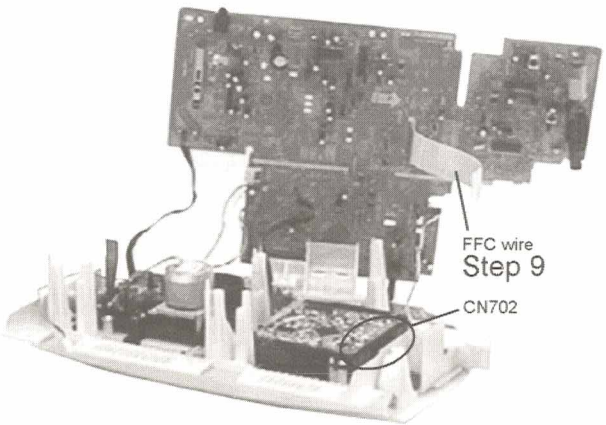
Step 5: Take out the speaker box cover on both sides.
Step 6: Remove the cable connection CP301.



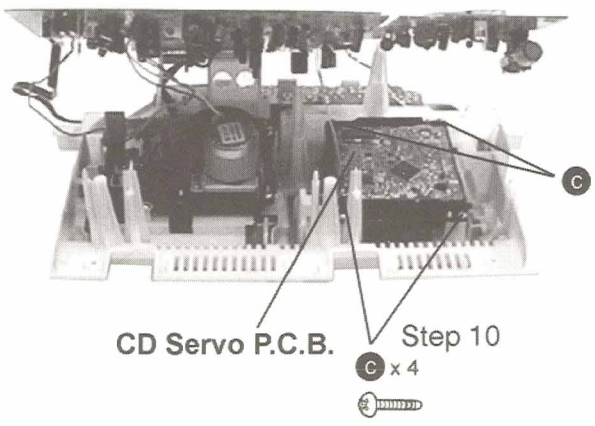
Step 4: Remove the wire from CP601.



10.1.2. Checking for CD Servo P.C.B.

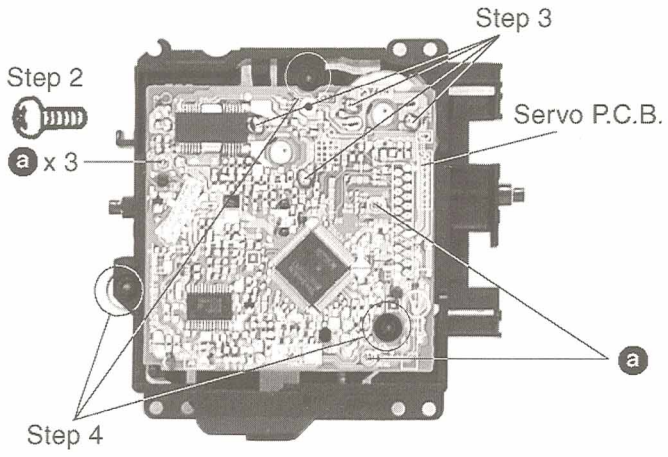


Step 9: Remove the FFC wire from CN702



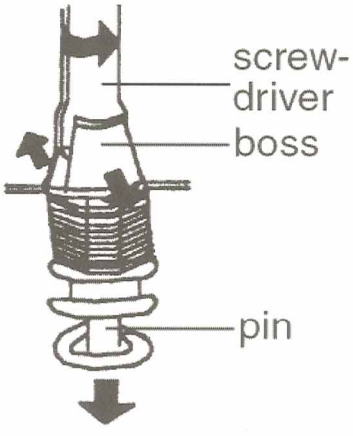
10.2. Main Component Replacement Procedures

10.2.1. Replacement of the Traverse Deck



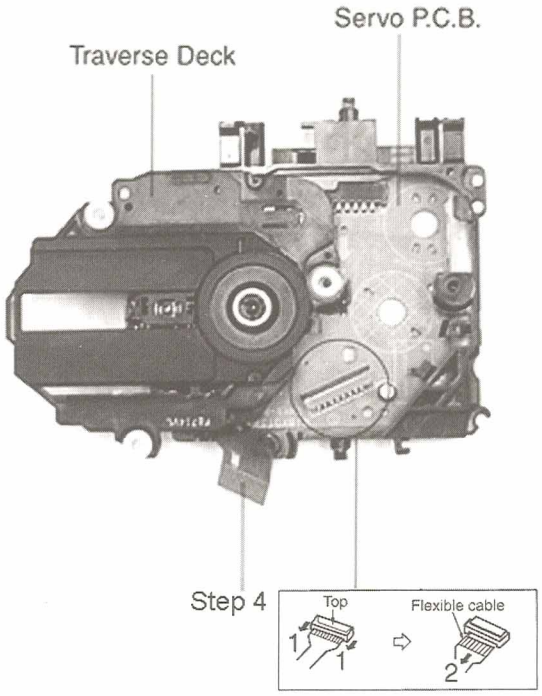
Step 2: Desolder the 4 legs of the 2 motors and pull out the Servo P.C.B.

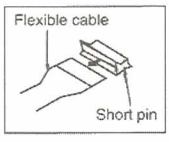
Step 3: Widen the 3 bosses with a flat screwdriver and pull out the 3 pins. Then remove the Traverse Deck.



Note :

Insert a short pin into the flexible cable for traverse unit.

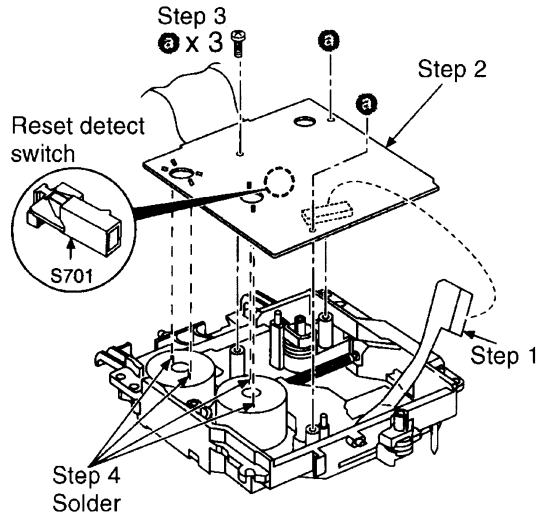




Step 4: Remove the flexible cable CN701.

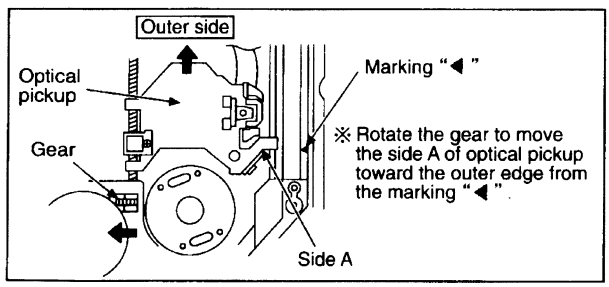
- Removal of the flexible cable. Push the top of the connector in the direction of the arrow 1, and the pull out the flexible cable in the direction of the arrow 2.

10.2.2. Installation of the CD Servo P.C.B. after Replacement



Step 1 Connect the FFC board.

Step 2 Install the CD servo P.C.B. in the traverse deck assembly.


Outer side
Optical pickup
Gear
Marking "◀"
※ Rotate the gear to move the side A of optical pickup toward the outer edge from the marking "◀".
Side A

Note :

Before installing the CD servo P.C.B., move the optical pickup towards the outer edge from the marking (black triangle).

[Otherwise, the detect switch (S701) mounted on the CD servo P.C.B. may be damaged.]

11 Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology.)

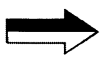
Notes:

S701	Rest Switch
SW302	Tape/Radio/CD Function Switch
SW601	Reverse Skip Switch
SW602	Forward Skip Switch
SW603	CD Play/Pause Switch
SW604	FM Mode Stop/Clear Switch
SW605	CD Play/Tune Mode Switch
SW606	Memory Program Switch
SW607	Tone/XBS Switch
SW802	CD Leaf Switch
SW1001	Record Switch

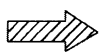
- **Signal line**

: +B line

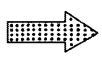
: -B line

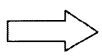

: FM/AM signal line

: Main signal line

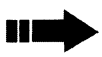

: Playback signal line

: Record signal line


: CD signal line


: FM signal line

: AM signal line


: AM OSC signal line

Battery Current:

Volume minimum :

100 mA (FM & AM)

180 mA (FM REC & AM REC)

150 mA (TAPE Playback)

240 mA (CD)

290 mA (CD REC)

Volume maximum :

300 mA (FM & AM)

380 mA (FM REC & AM REC)

440 mA (TAPE Playback)

590 mA (CD)

690 mA (CD REC)

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark	...Playback	< >	...FM
(( ))	...CD	( )	...AM
[ ]	...AUX		

- **Importance safety notice:**

  Components identifed by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

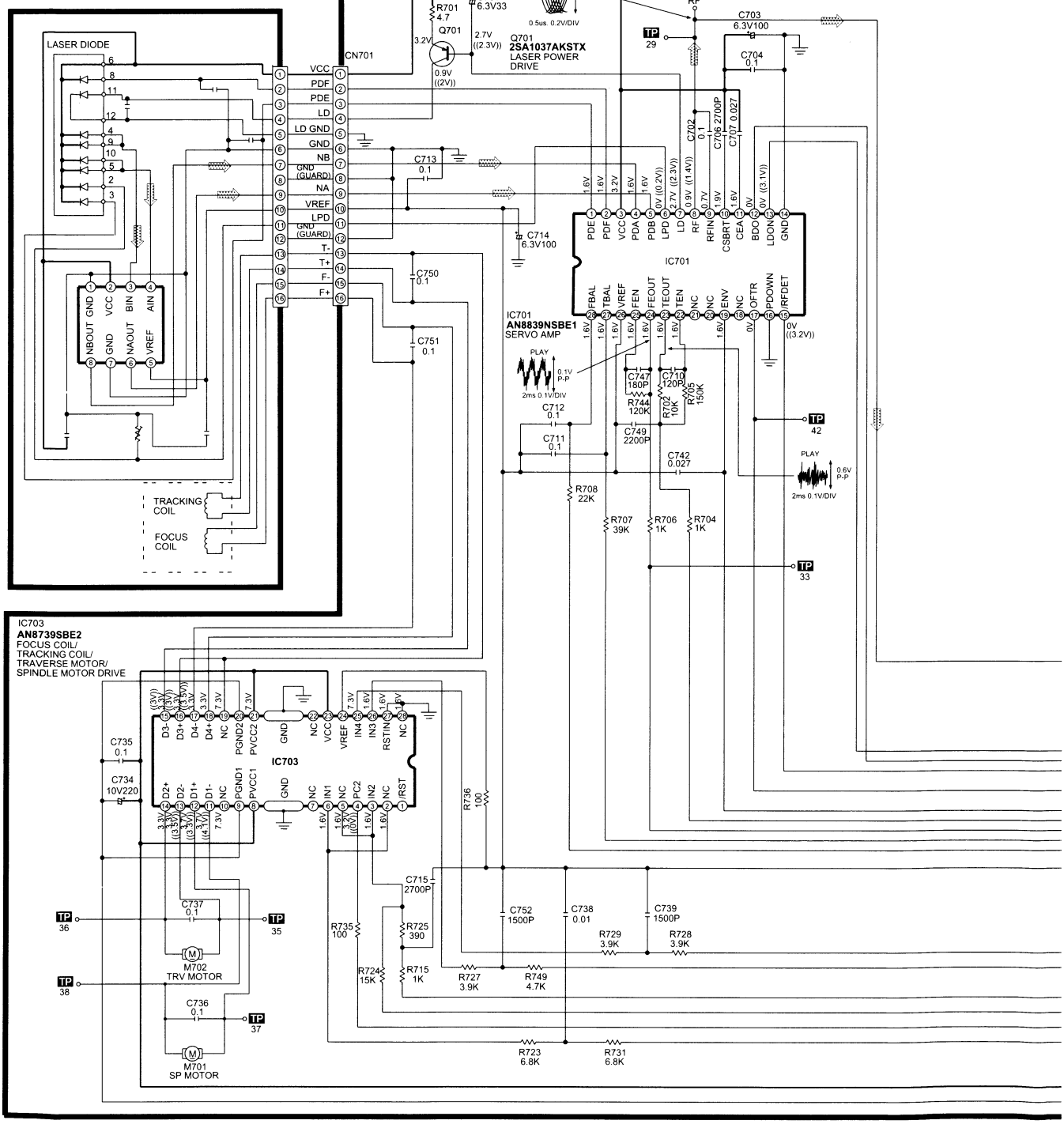
- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

SCHEMATIC DIAGRAM-1

: + B Line : CD Signal Line

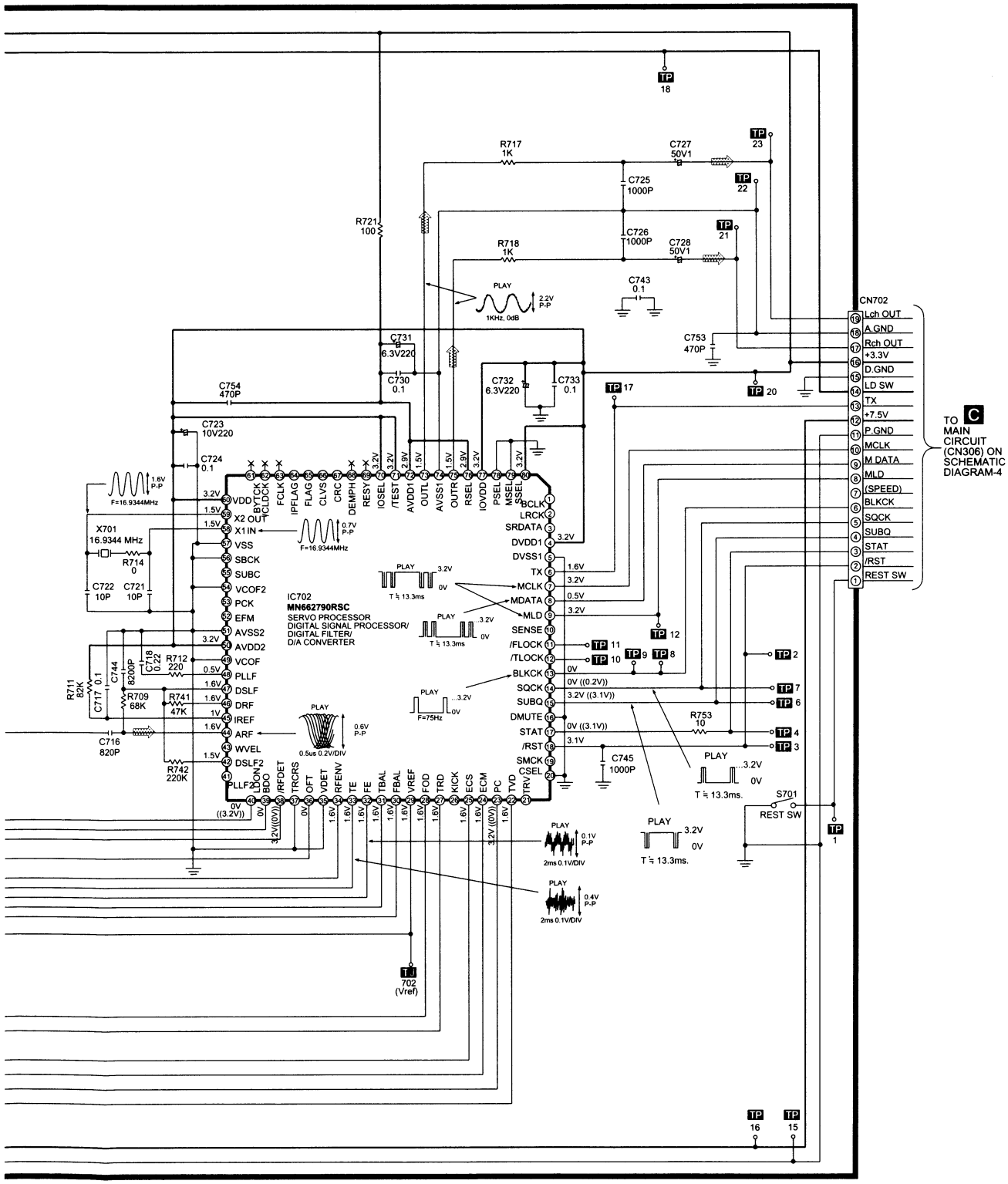
A CD SERVO CIRCUIT

OPTICAL PICKUP CIRCUIT



SCHEMATIC DIAGRAM-2

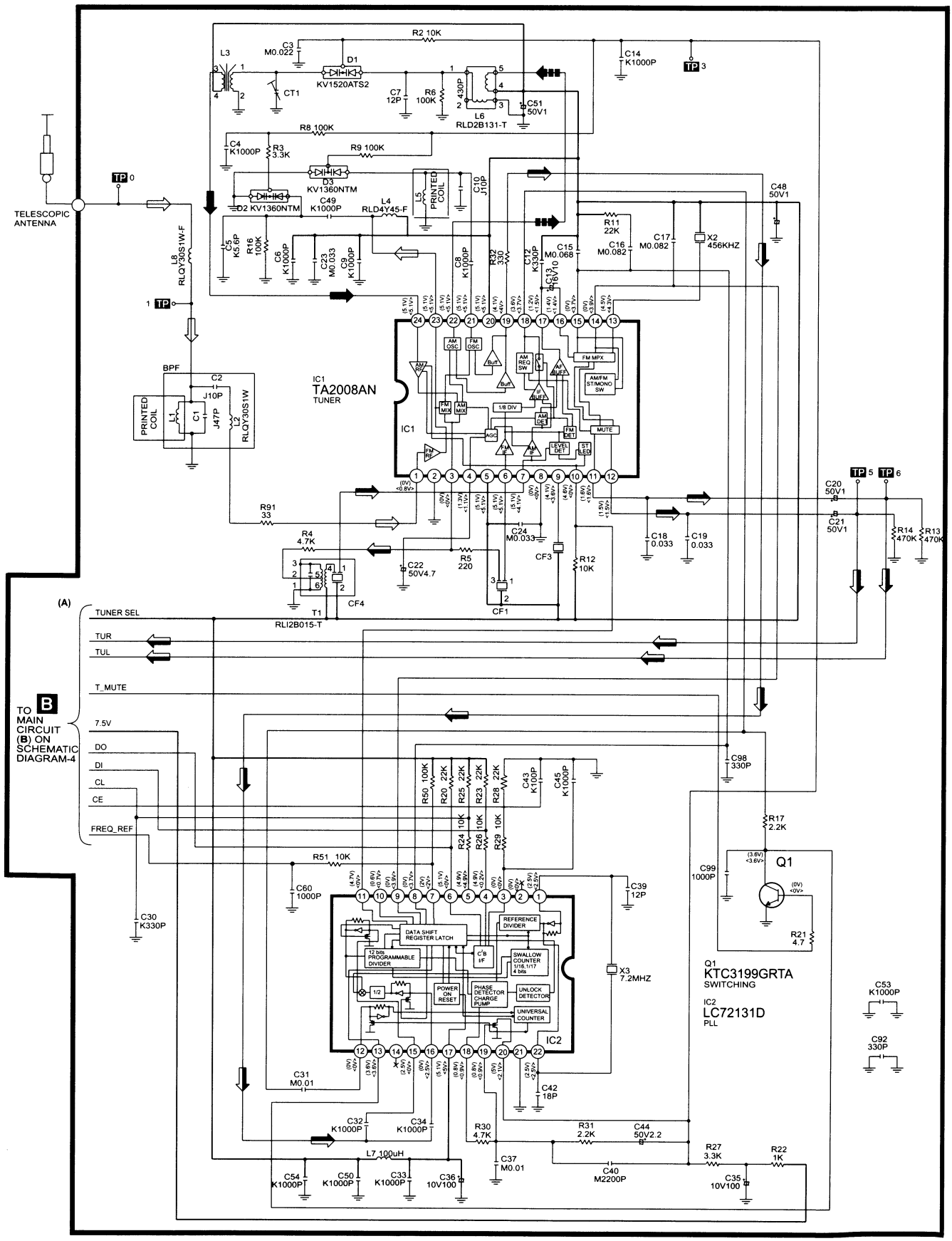
: + B Line : CD Signal Line



SCHEMATIC DIAGRAM-3

B MAIN(TUNER) CIRCUIT

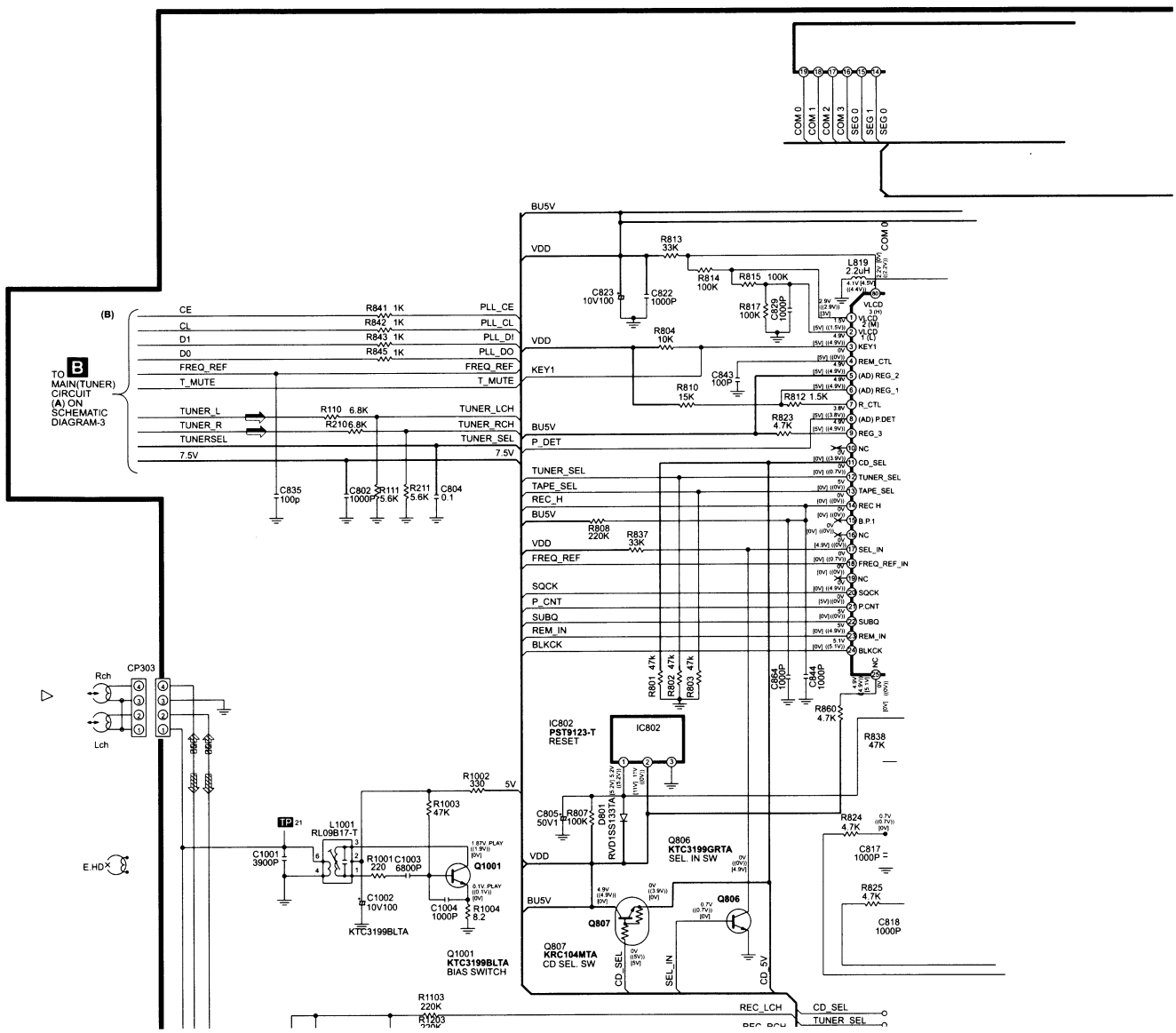
——— : +B Line ➡ : AM Signal Line ⇨ : FM Signal Line
▮▮▮➡ : AM OSC Signal Line ➡ : FM/AM Signal Line



SCHEMATIC DIAGRAM-4

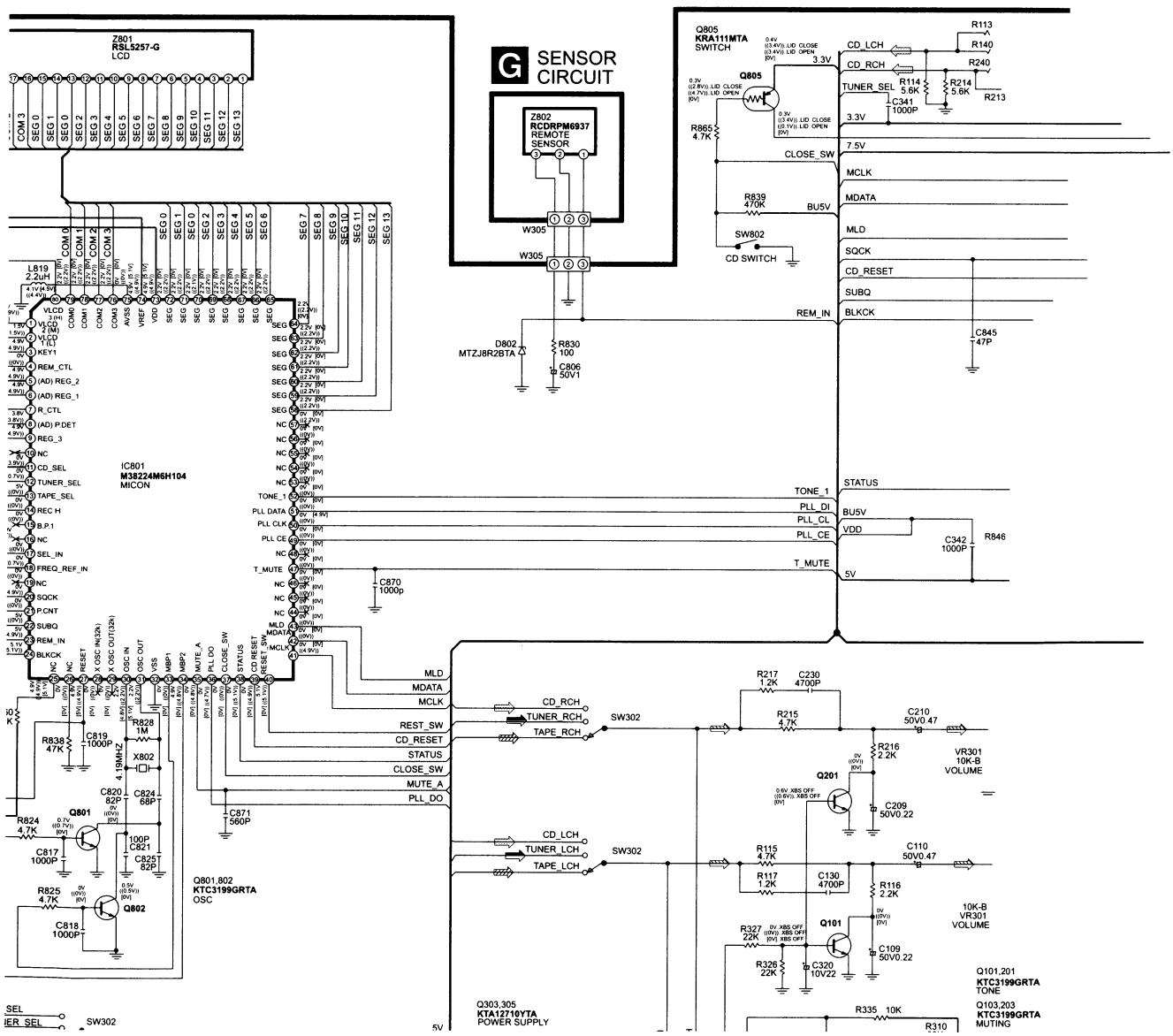
——: +B Signal Line ▨: Main Signal Line ▨: Playback Signal Line
▨: Rec Signal Line ▨: FM/AM Signal Line ▨: CD Signal Line

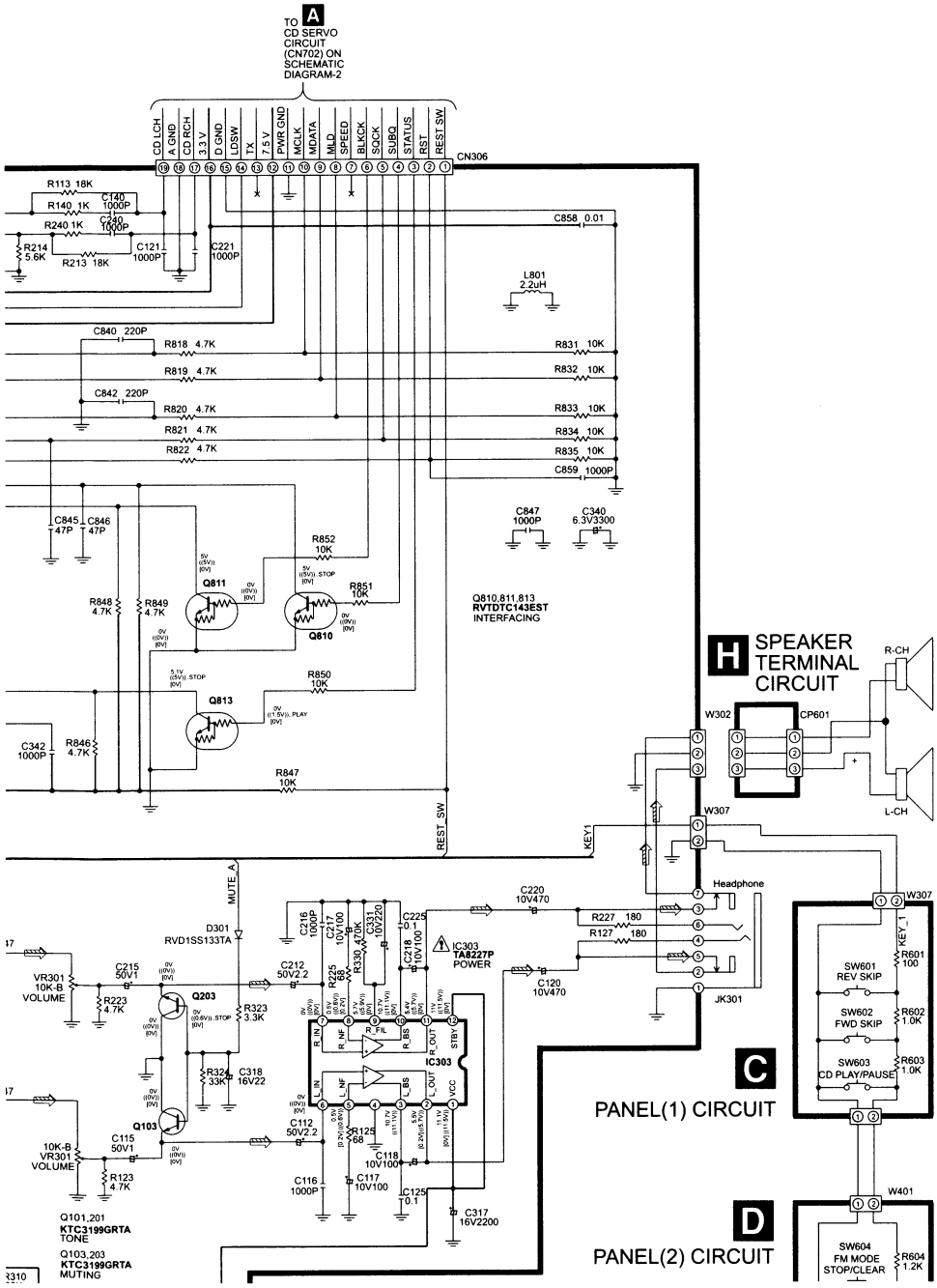
B MAIN(TUNER) CIRCUIT

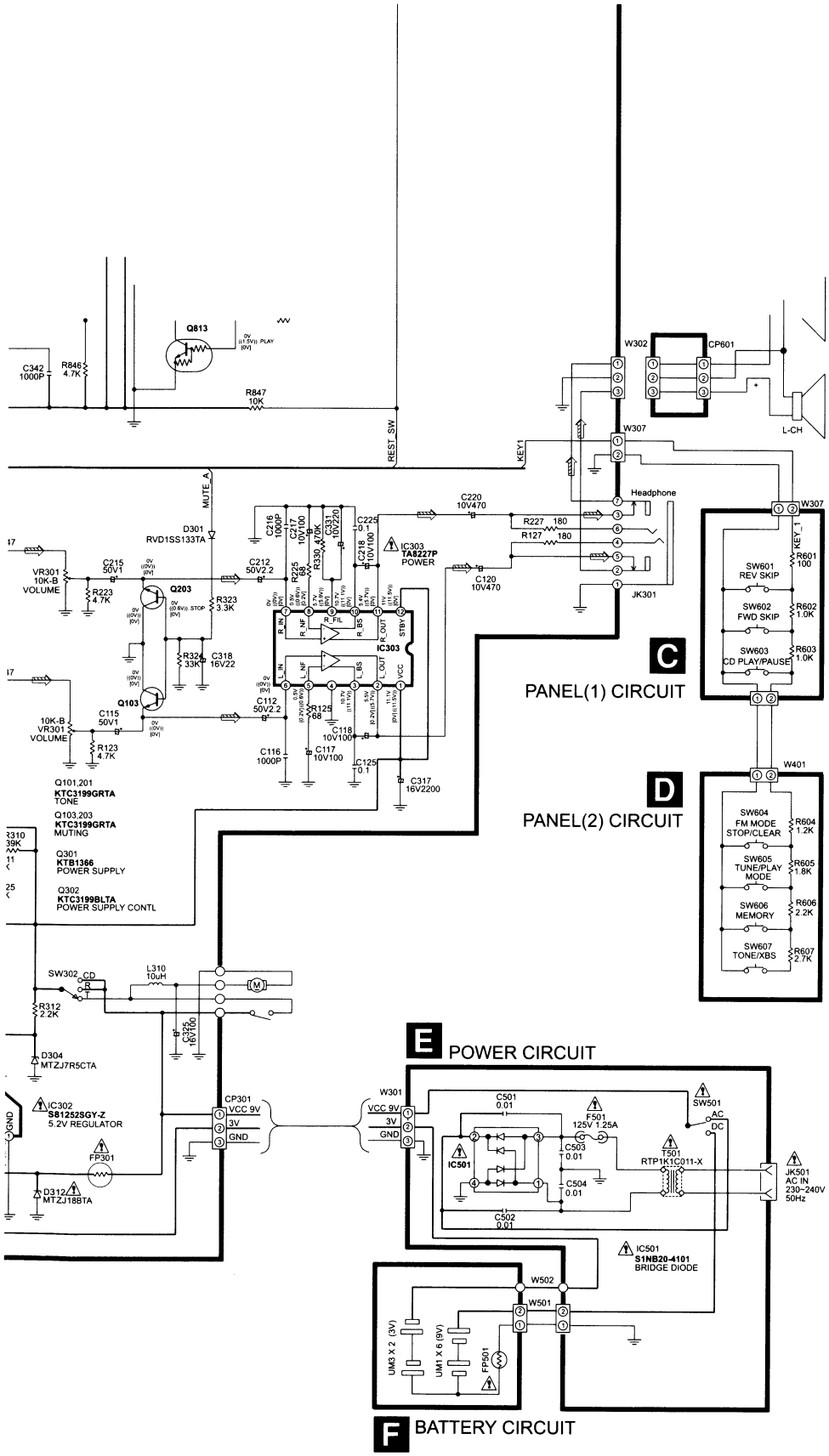


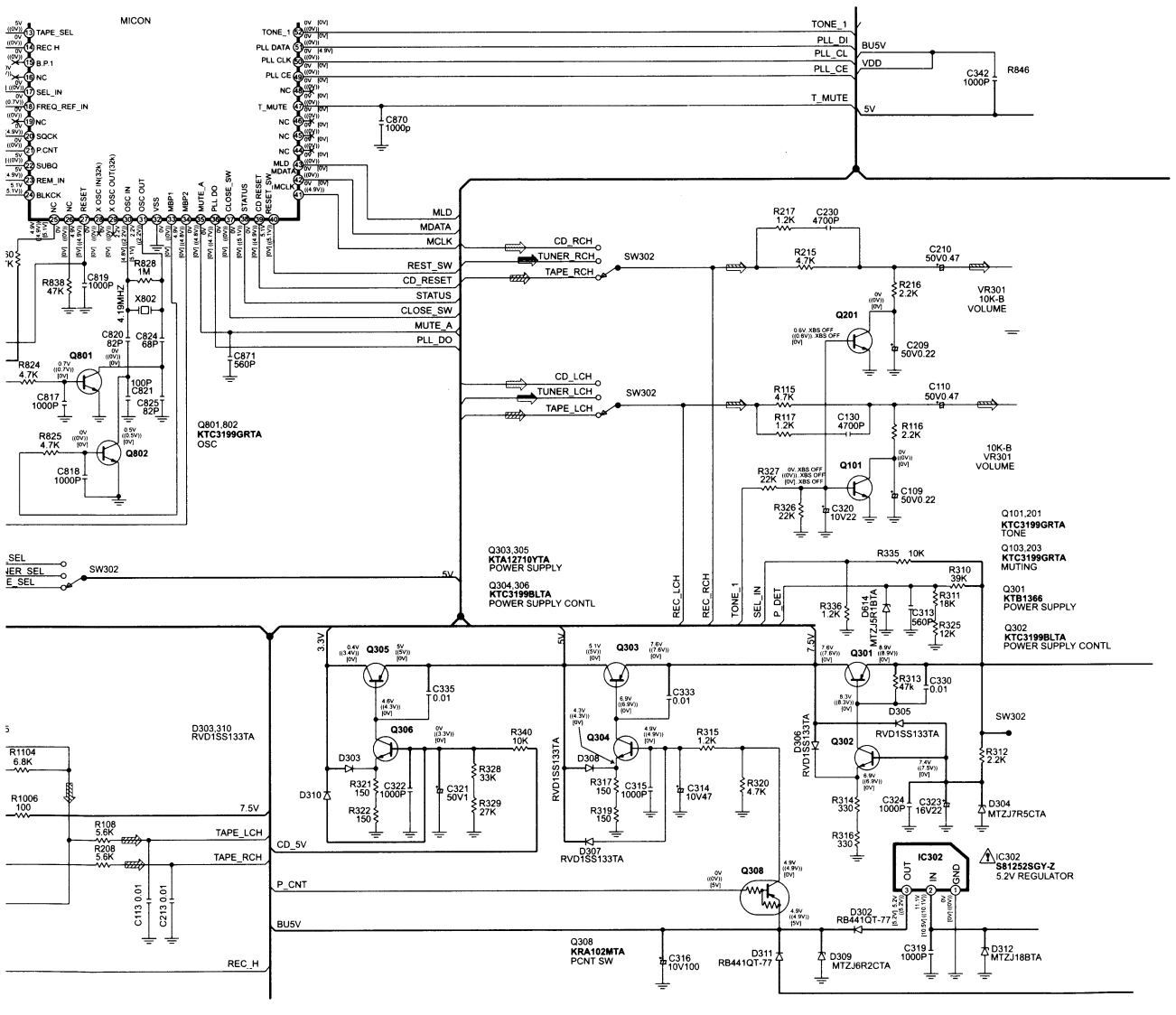
ıal Line

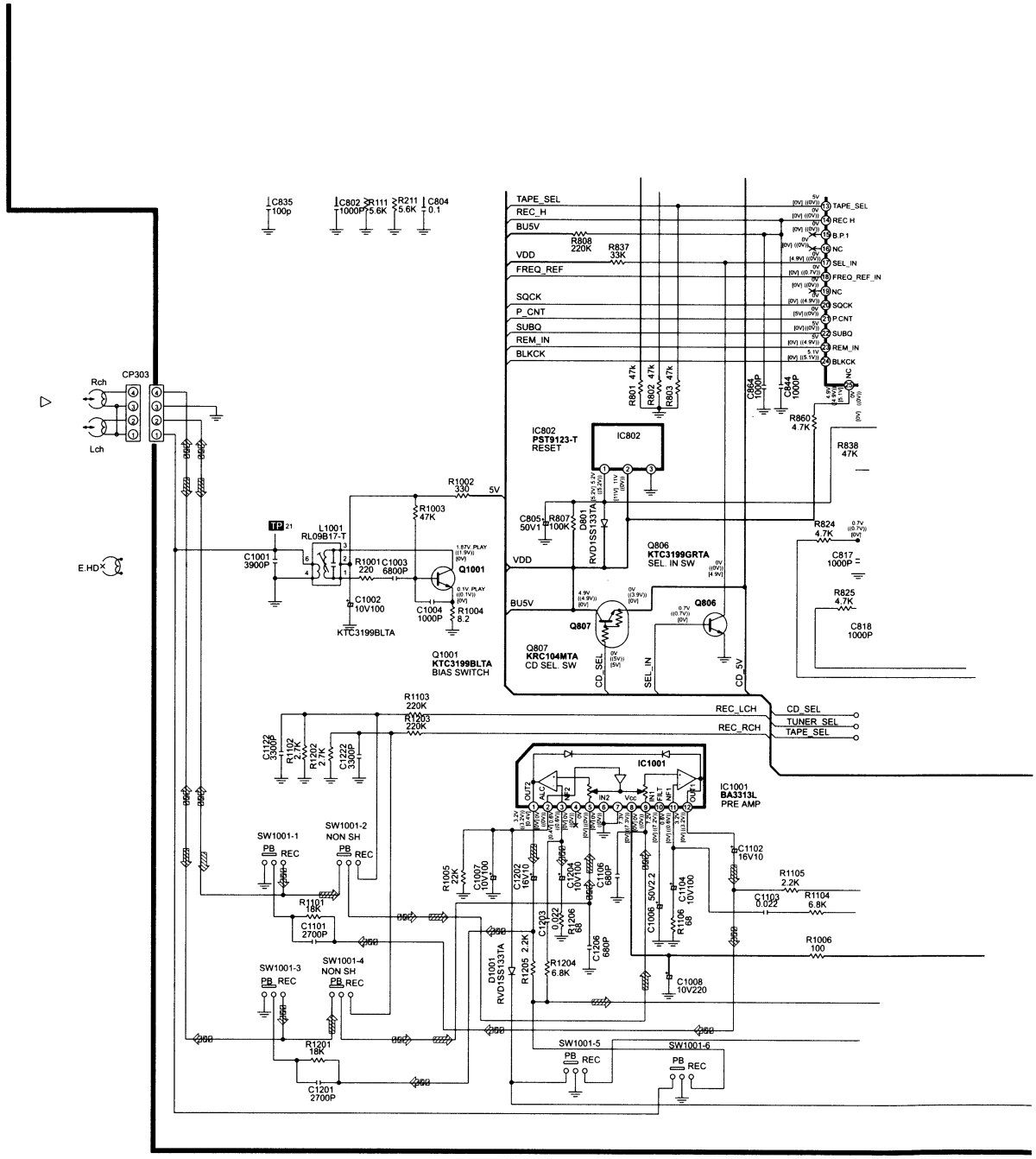
e


G SENSOR CIRCUIT
Z801
RSL5257-G
LCD
Z802
RCDRPM6937
REMOTE SENSOR
W305
W305
Q805
KRA111MTA
SWITCH
Q805
R865
4.7K
SW802
CD SWITCH
R839
470K
BU5V
CD_LCH
CD_RCH
TUNER_SEL
R113
R140
R240
R114
5.6K
R214
5.6K
R213
C341
1000P
3.3V
7.5V
CLOSE_SW
MCLK
MDATA
MLD
SQCK
CD_RESET
SUBQ
REM_IN
BLKCK
D802
MTZJ8R2BTA
R830
100
C806
50V1
C845
47P
IC801
M38224M6H104
MICON
TONE_1
PLL DATA
PLL CLK
PLL CE
T_MUTE
STATUS
PLL_DI
PLL_CL
PLL_CE
VDD
5V
C342
1000P
R846
C870
1000p
MLD
MDATA
MCLK
REST_SW
CD_RESET
STATUS
CLOSE_SW
MUTE_A
PLL_DO
CD_RCH
TUNER_RCH
TAPE_RCH
SW302
CD_LCH
TUNER_LCH
TAPE_LCH
SW302
R217
1.2K
C230
4700P
R215
4.7K
C210
50V0.47
R216
2.2K
VR301
10K-B
VOLUME
Q201
C209
50V0.22
R115
4.7K
R117
1.2K
C130
4700P
C110
50V0.47
R116
2.2K
10K-B
VR301
VOLUME
Q101
R327
22K
R326
22K
C320
10V22
C109
50V0.22
R838
47K
C819
1000P
R828
1M
X802
4.19MHZ
C820
82P
C824
68P
Q801
R824
4.7K
C817
1000P
100P
C821
C825
82P
R825
4.7K
Q802
C818
1000P
C871
560P
Q801,802
KTC3199GRTA
OSC
Q303,305
KTA1271GYTA
POWER SUPPLY
Q101,201
KTC3199GRTA
TONE
Q103,203
KTC3199GRTA
MUTING
R335 10K
R310

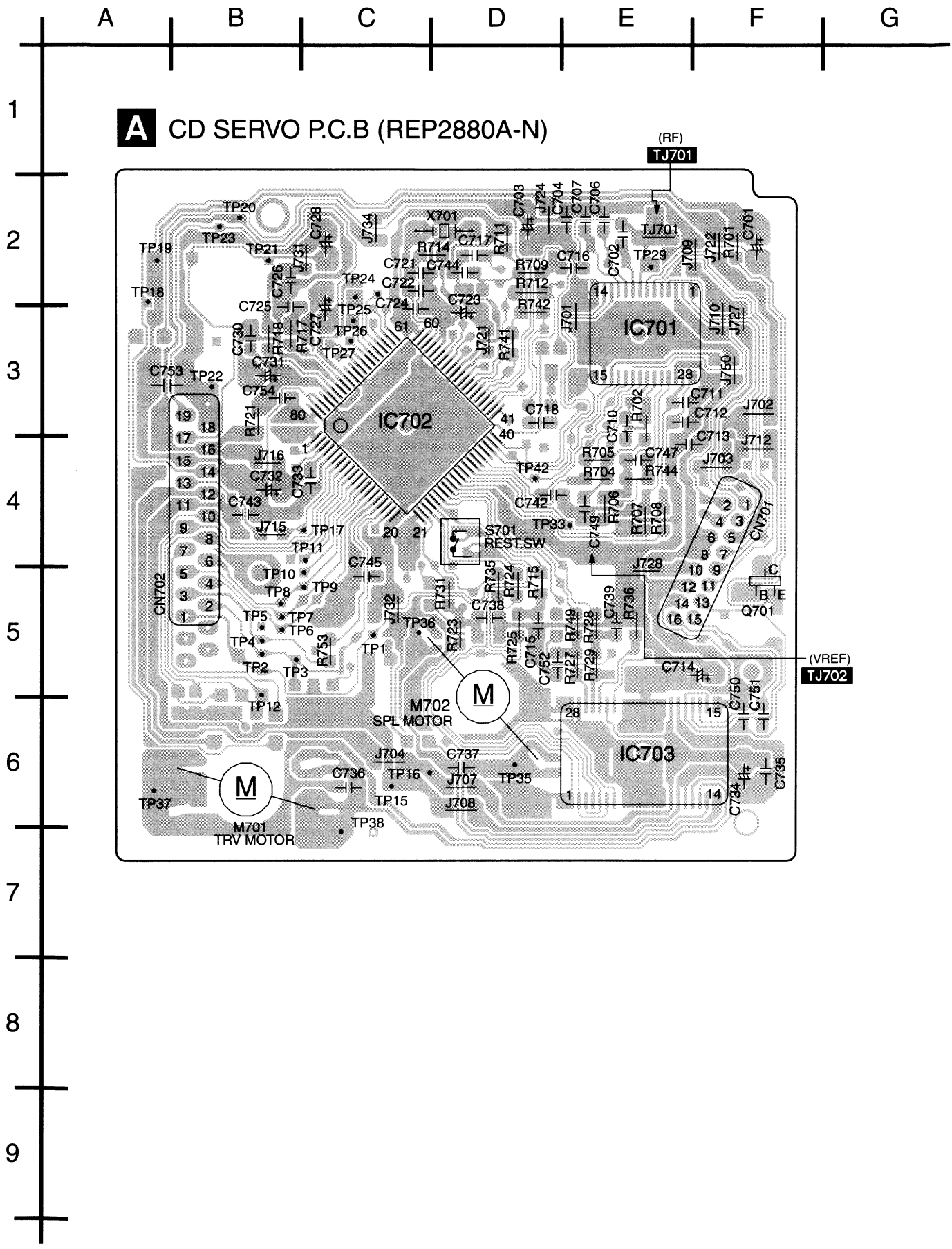

TO A
CD SERVO CIRCUIT (CN702) ON SCHEMATIC DIAGRAM-2
CD LCH
A GND
CD RCH
3.3 V
D GND
LDSW
TX
7.5 V
PWR GND
MCLK
MDATA
MLD
SPEED
BLKCK
SOCK
SUBQ
STATUS
RST
REST SW
CN306
R113 18K
R140 1K
C140 1000P
R240 1K
C240 1000P
R214 5.6K
R213 18K
C121 1000P
C221 1000P
C858 0.01
L801 2.2uH
C840 220P
R818 4.7K
R819 4.7K
C842 220P
R820 4.7K
R821 4.7K
R822 4.7K
R831 10K
R832 10K
R833 10K
R834 10K
R835 10K
C859 1000P
C847 1000P
C340 6.3V3300
C845 47P
C846 47P
R852 10K
R851 10K
R850 10K
R847 10K
R848 4.7K
R849 4.7K
R846 4.7K
C342 1000P
Q811
Q810
Q813
Q810,811,813
RVTDTC143EST
INTERFACING
REST_SW
KEY1
H SPEAKER TERMINAL CIRCUIT
R-CH
L-CH
W302
CP601
W307
Headphone
JK301
MUTE_A
D301
RVD1SS133TA
C216 1000P
C217 10V100
C331 10V220
C225 10V100
C218 10V100
IC303
TA8227P
POWER
C220 10V470
C120 10V470
R227 180
R127 180
C215 50V1
C212 50V2.2
R225 68
R330 470K
VR301 10K-B VOLUME
R223 4.7K
Q203
R323 3.3K
R324 33K
C318 16V22
Q103
C115 50V1
10K-B VR301 VOLUME
R123 4.7K
C112 50V2.2
R125 68
C118 10V100
C116 1000P
C117 10V100
C125 0.1
C317 16V2200
R_IN
R_NF
R_FIL
R_BS
R_OUT
STBY
L_IN
L_NF
L_BS
L_OUT
VCC
IC303
Q101,201
KTC3199GRTA
TONE
Q103,203
KTC3199GRTA
MUTING
C PANEL(1) CIRCUIT
D PANEL(2) CIRCUIT
KEY_1
SW601 REV SKIP
SW602 FWD SKIP
SW603 CD PLAY/PAUSE
R601 100
R602 1.0K
R603 1.0K
W401
SW604 FM MODE STOP/CLEAR
R604 1.2K

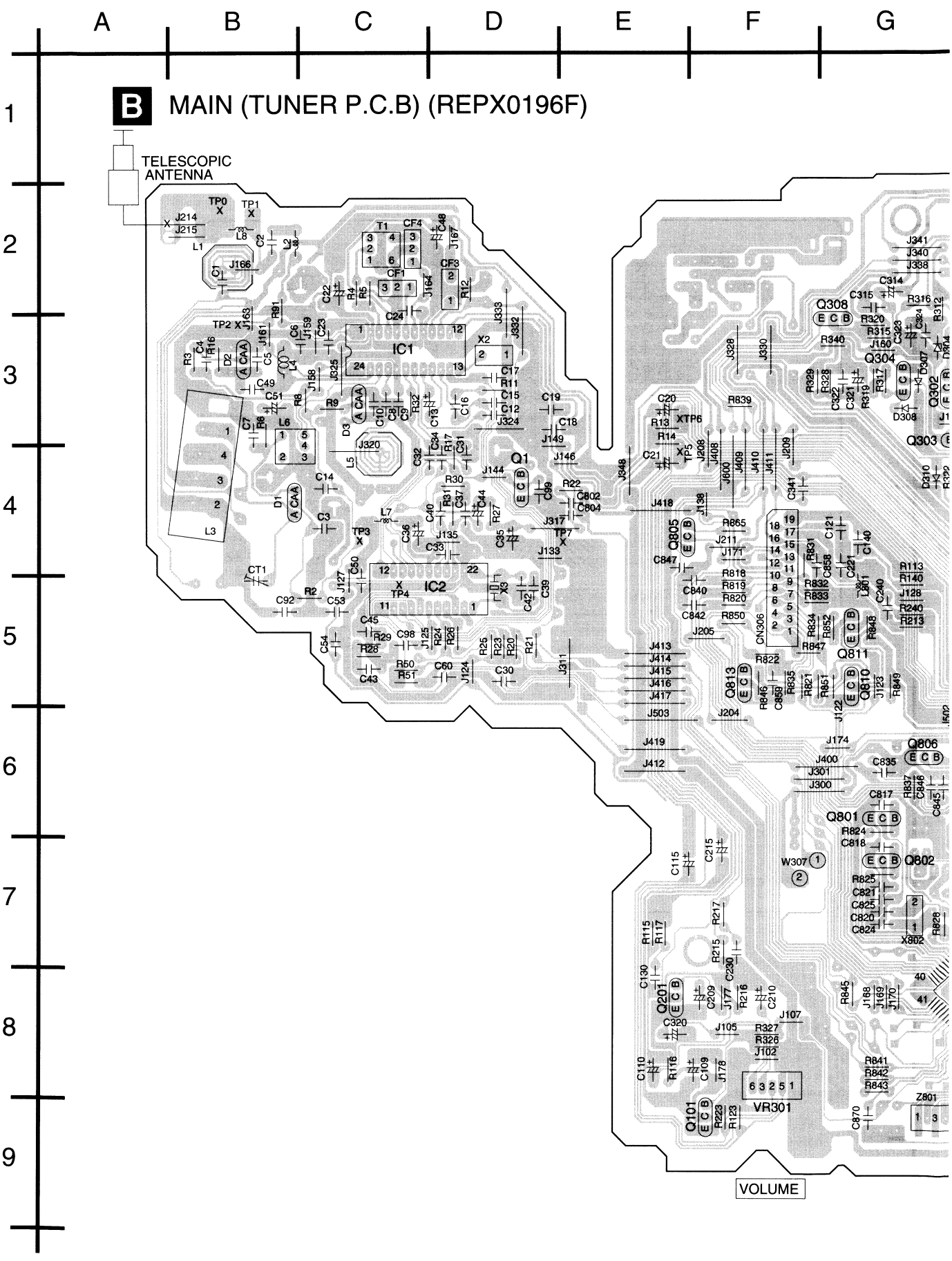

Q813
C342 1000P
R846 4.7K
R847 10K
REST_SW
KEY1
MUTE_A
D301 RVD1SS133TA
VR301 10K-B VOLUME
R223 4.7K
Q203
R323 3.3K
R324 33K
C318 16V22
Q103
C115 50V1
R123 4.7K
C212 50V2.2
C112 50V2.2
R125 68
C116 1000P
C117 10V100
C118 10V100
C125 0.1
C317 16V2200
C216 1000P
C217 10V100
C231 10V220
C225 0.1
C218 10V100
R225 10K
R330 10K
IC303 TA8227P POWER
R_IN
R_NF
R_FIL
R_BS
R_OUT
STBY
L_IN
L_NF
L_BS
L_OUT
VCC
C220 10V470
C120 10V470
R227 180
R127 180
W302
CP601
L-CH
W307
Headphone
JK301
KEY_1
SW601 REV SKIP
SW602 FWD SKIP
SW603 CD PLAY/PAUSE
R601 100
R602 1.0K
R603 1.0K
C
PANEL(1) CIRCUIT
W401
SW604 FM MODE STOP/CLEAR
SW605 TUNE/PLAY MODE
SW606 MEMORY
SW607 TONE/XBS
R604 1.2K
R605 1.8K
R606 2.2K
R607 2.7K
D
PANEL(2) CIRCUIT
Q101,201 KTC3199GRTA TONE
Q103,203 KTC3199GRTA MUTING
Q301 KTB1366 POWER SUPPLY
Q302 KTC3199BLTA POWER SUPPLY CONTL
SW302 CD
L310 10uH
R312 2.2K
C305 16V100
D304 MTZJ7R5CTA
IC302 S8125ZSGY-Z 5.2V REGULATOR
FP301
D312 MTZJ18BTA
CP301
VCC 9V
3V
GND
W301
E
POWER CIRCUIT
C501 0.01
F501 125V 1.25A
SW501 AC DC
IC501
T501 RTP1K1C011-X
C503 0.01
C504 0.01
C502 0.01
JK501 AC IN 230-240V 50Hz
IC501 S1NB20-4101 BRIDGE DIODE
W502
W501
UM3 X 2 (3V)
UM1 X 6 (9V)
FP501
F
BATTERY CIRCUIT


MICON
TAPE_SEL
REC H
B.P.1
NC
SEL_IN
FREQ_REF_IN
NC
SQCK
P.CNT
SUBQ
REM_IN
BLKCK
TONE_1
PLL DATA
PLL CLK
PLL CE
NC
T_MUTE
NC
NC
NC
MLD
MDATA
MCLK
REST_SW
CD_RESET
STATUS
CLOSE_SW
MUTE_A
PLL_DO
C870 1000p
TONE_1
PLL_DI
PLL_CL
PLL_CE
T_MUTE
BU5V
VDD
5V
C342 1000P
R846
R828 1M
C819 1000P
R838 47K
X802
4.19MHZ
C820 82P
C824 68P
C821 100P
C825 82P
C817 1000P
C818 1000P
R824 4.7K
R825 4.7K
Q801
Q802
C871 560P
Q801,802
KTC3199GRTA
OSC
CD_RCH
TUNER_RCH
TAPE_RCH
SW302
CD_LCH
TUNER_LCH
TAPE_LCH
SW302
R217 1.2K
C230 4700P
R215 4.7K
C210 50V0.47
R216 2.2K
VR301
10K-B
VOLUME
Q201
C209 50V0.22
R115 4.7K
C110 50V0.47
R117 1.2K
C130 4700P
R116 2.2K
10K-B
VR301
VOLUME
Q101
R327 22K
R326 22K
C320 10V22
C109 50V0.22
Q101,201
KTC3199GRTA
TONE
Q103,203
KTC3199GRTA
MUTING
Q301
KTB1366
POWER SUPPLY
Q302
KTC3199BLTA
POWER SUPPLY CONTL
Q303,305
KTA1271GYTA
POWER SUPPLY
Q304,306
KTC3199BLTA
POWER SUPPLY CONTL
SEL
ER_SEL
E_SEL
SW302
5V
REC_LCH
REC_RCH
TONE_1
SEL_IN
P_DET
R335 10K
R310 39K
R311 18K
R336 1.2K
D614 MTZJ5R1BTA
C313 560P
R325 12K
3.3V
Q305
C335 0.01
Q306
D303
D310
R321 150
C322 1000P
R322 150
R328 33K
C321 50V1
R329 27K
R340 10K
D303,310
RVD1SS133TA
5V
Q303
C333 0.01
Q304
D308
R317 150
C315 1000P
R319 150
R315 1.2K
C314 10V47
R320 4.7K
D307
RVD1SS133TA
7.5V
Q301
R313 47k
C330 0.01
D305
D306
RVD1SS133TA
Q302
RVD1SS133TA
R312 2.2K
R314 330
C324 1000P
C323 16V22
D304
MTZJ7R5CTA
R316 330
R1104 6.8K
R1006 100
R108 5.6K
R208 5.6K
C113 0.01
C213 0.01
7.5V
TAPE_LCH
TAPE_RCH
CD_5V
P_CNT
BU5V
REC_H
Q308
KRA102MTA
PCNT SW
C316 10V100
D311
RB441QT-77
D309
MTZJ6R2CTA
D302
RB441QT-77
IC302
OUT
IN
GND
IC302
S81252SGY-Z
5.2V REGULATOR
C319 1000P
D312
MTZJ18BTA

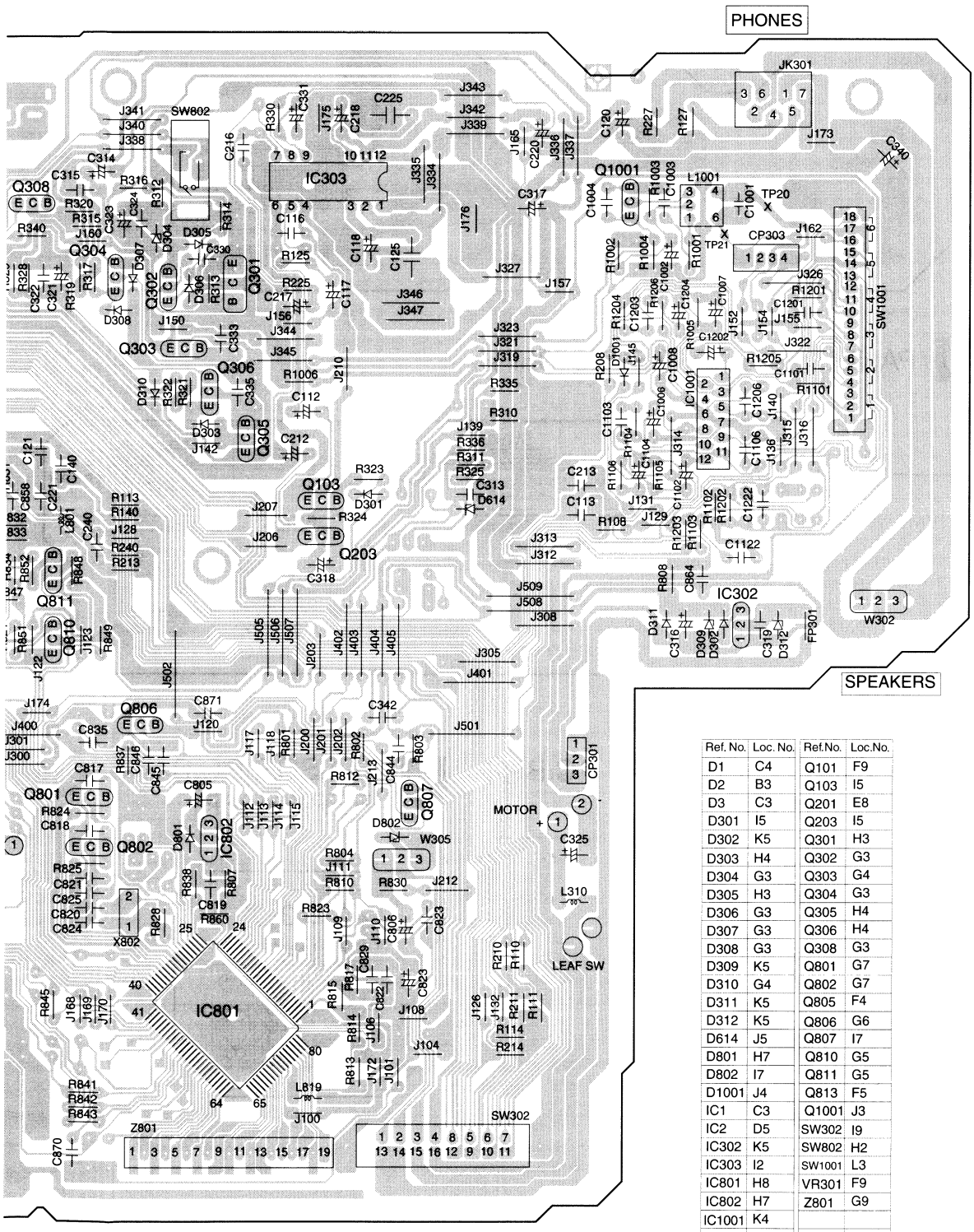

CP303
Rch
Lch
E.HD
C835 100p
C802 1000P
R111 75.6K
R211 5.6K
C804 0.1
TAPE_SEL
REC_H
BU5V
VDD
FREQ_REF
SQCK
P_CNT
SUBQ
REM_IN
BLKCK
R808 220K
R837 33K
R801 47K
R802 47K
R803 47K
C864 1000P
C844 1000P
R860 4.7K
R838 47K
IC802
IC802 PST9123-T RESET
R1002 330
5V
R1003 47K
TP 21
L1001 RL09B17-T
C1001 3900P
R1001 220
C1003 6800P
Q1001
C1002 10V100
C1004 1000P
R1004 8.2
KTC3199BLTA
Q1001 KTC3199BLTA BIAS SWITCH
C805 50V1
R807 100K
D901 RVD1SS133TA
Q806 KTC3199GRTA SEL. IN SW
Q807 KRC104MTA CD SEL. SW
Q806
R824 4.7K
C817 1000P
R825 4.7K
C818 1000P
CD_SEL
SEL_IN
CD_5V
R1103 220K
R1203 220K
C1122 3300P
R1102 2.7K
R1202 2.7K
C1222 3300P
REC_LCH
REC_RCH
CD_SEL
TUNER_SEL
TAPE_SEL
IC1001
IC1001 BA3313L PRE AMP
SW1001-1
SW1001-2 NON SH
SW1001-3
SW1001-4 NON SH
SW1001-5
SW1001-6
PB REC
R1101 18K
C1101 2700P
R1201 18K
C1201 2700P
R1005 22K
C1007 10V100
C1202 16V10
C1204 10V100
C1106 680P
C1102 16V10
R1105 2.2K
C1103 0.022
R1104 6.8K
C1006 50V22
R1106 68
C1104 10V100
R1006 100
C1203 0.022
R1206 68
R1204 6.8K
C1008 10V220
D1001 RVD1SS133TA
R1205 2.2K

12 Printed Circuit Board




A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
B MAIN (TUNER P.C.B) (REPX0196F)
TELESCOPIC ANTENNA
IC1
IC2
Q1
Q201
Q303
Q304
Q308
Q801
Q802
Q805
Q806
Q810
Q811
Q813
VR301
VOLUME

G H I J K L M

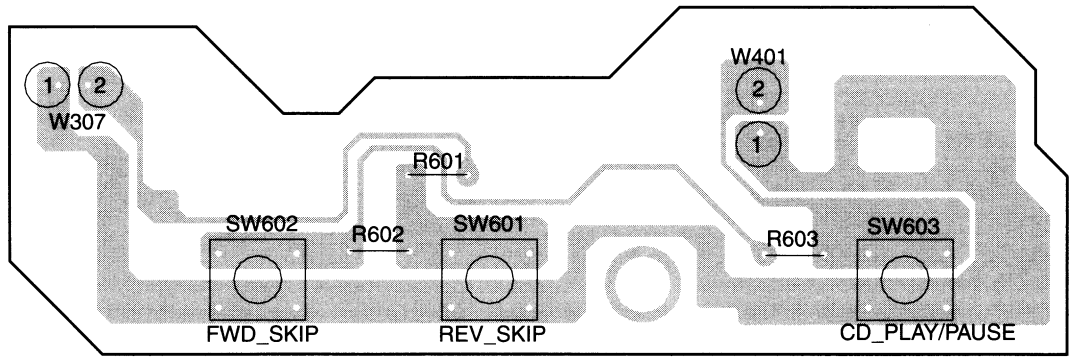


Ref. No.	Loc. No.	Ref.No.	Loc.No.
D1	C4	Q101	F9
D2	B3	Q103	I5
D3	C3	Q201	E8
D301	I5	Q203	I5
D302	K5	Q301	H3
D303	H4	Q302	G3
D304	G3	Q303	G4
D305	H3	Q304	G3
D306	G3	Q305	H4
D307	G3	Q306	H4
D308	G3	Q308	G3
D309	K5	Q801	G7
D310	G4	Q802	G7
D311	K5	Q805	F4
D312	K5	Q806	G6
D614	J5	Q807	I7
D801	H7	Q810	G5
D802	I7	Q811	G5
D1001	J4	Q813	F5
IC1	C3	Q1001	J3
IC2	D5	SW302	I9
IC302	K5	SW802	H2
IC303	I2	SW1001	L3
IC801	H8	VR301	F9
IC802	H7	Z801	G9
IC1001	K4		
JK301	K2		
Q1	D4		

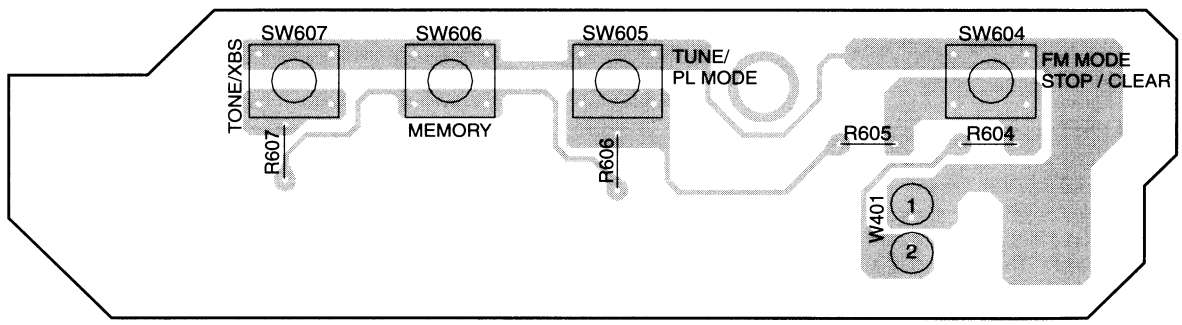
A B C D E F G

1 2 3 4 5 6 7 8 9

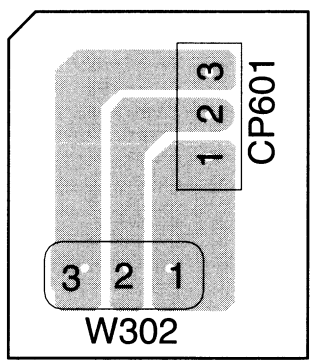
C PANEL(1) P.C.B (REPX0196F)



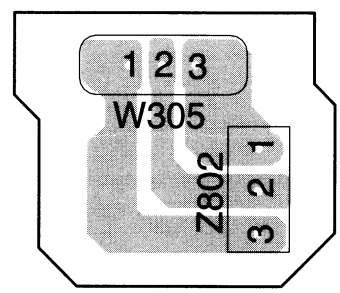
D PANEL (2) P.C.B (REPX0196F)



H SPEAKER TERMINAL P.C.B (REPX0196F)

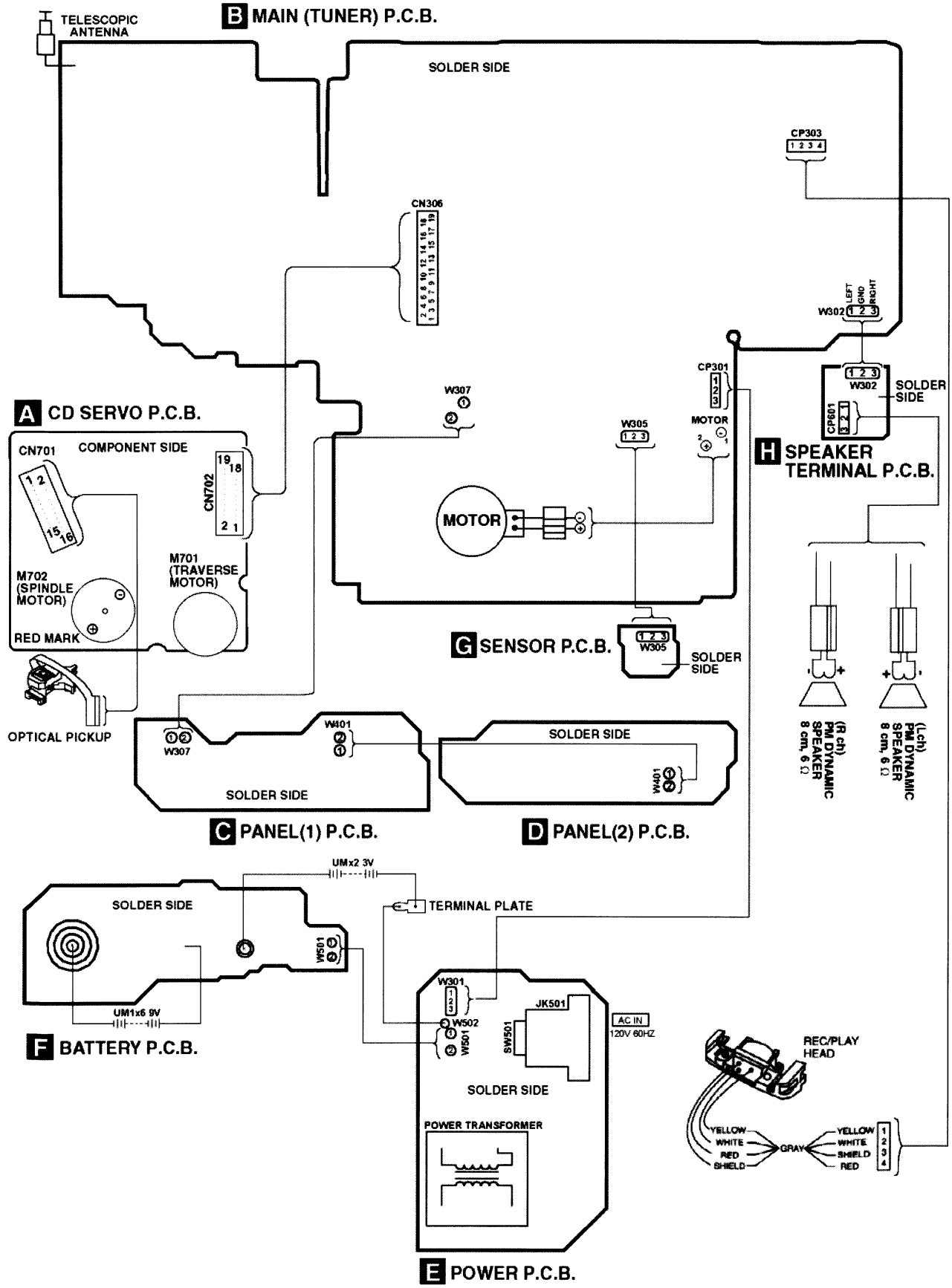


G SENSOR P.C.B (REPX0196F)

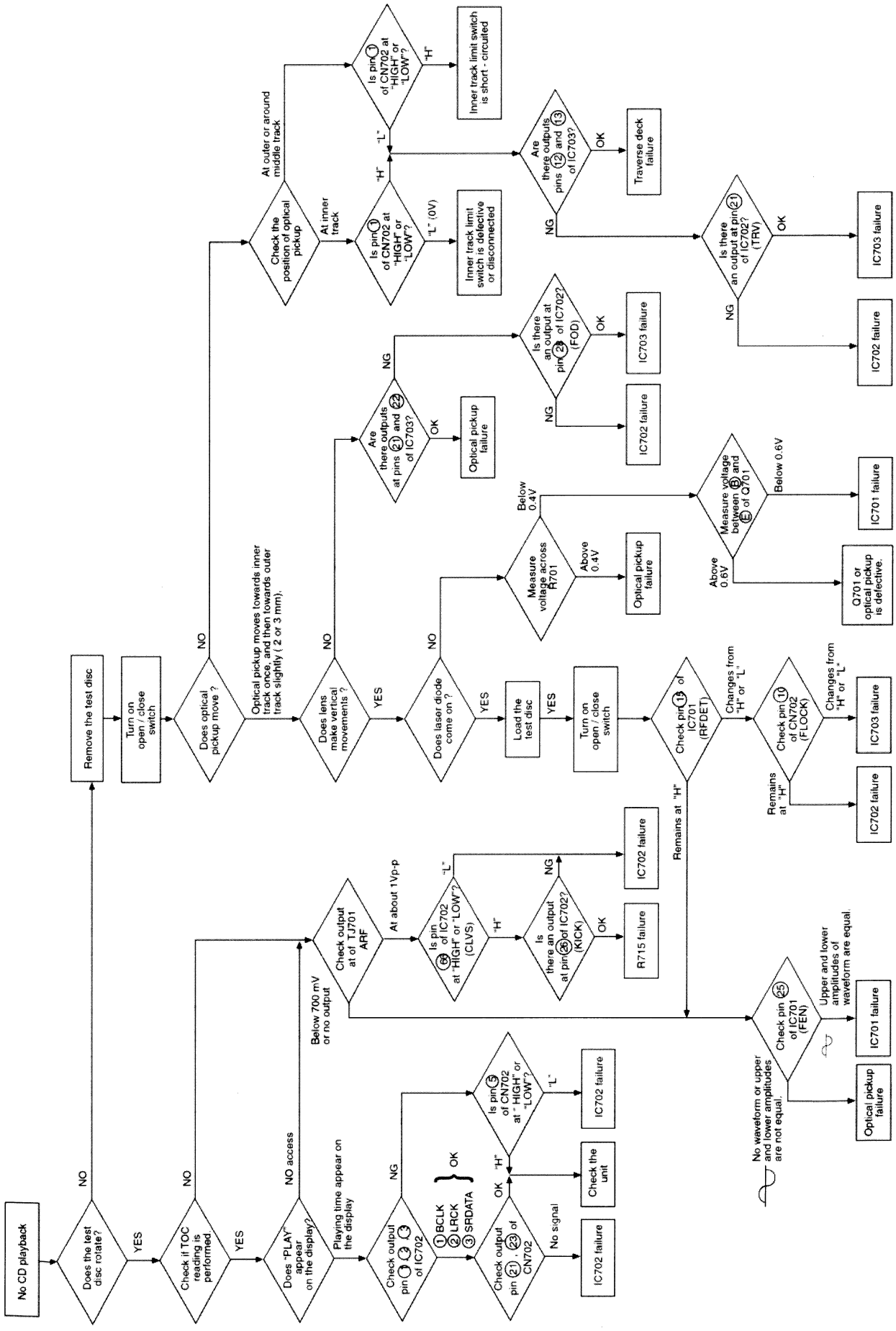


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
AC IN
230V-240V
50HZ
JK501
SW501
COM
AC
DC
C501
C502
C503
C504
IC501
T1.25A
F501 250V
FH502
FH501
W501
W502
W503
T501 POWER TRANSFORMER
SECONDARY
PRIMARY
CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE. PLEASE DO NOT
E POWER P.C.B (REPX0196F)
3V (1.5x2, UM-3 Batteries, R6 / LR6)
9V (1.5x4, UM-1 Batteries, R20 / LR20)
FP501
J349
J350
F BATTERY P.C.B (REPX0196F)

13 Wiring Connection Diagram



14 Troubleshooting Guide



15 Measurements and Adjustments

15.1. Tuner Section

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
1. Set volume control to maximum.
2. Set power source voltage to 9V.
3. Output of signal generator should be no higher than necessary to obtain an output reading.

NOTE: NO FM IF and FM stereo alignment is necessary as Tuner IC is used.

● AM-RF ALIGNMENT

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment (Shown in Fig.1)	Remarks
Connections	Frequency				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	540 kHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	[*1] L3 (AM ANT Coil)	Adjust for maximum output.
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	1404 kHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	CT1 (AM ANT Trimmer)	Adjust for maximum output.

[*1] Fix antenna coil with wax after completing alignment.

● FM-RF ALIGNMENT

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment (Shown in Fig.1)	Remarks
Connections	Frequency				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	87.5 MHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	[*1] L4 (FM ANT Coil)	Adjust for maximum output.

[*1] Fix antenna coil with wax after completing alignment.

● HEAD AZIMUTH ALIGNMENT

Test Tape	lindicator (Electronic Voltmeter or Oscilloscope)	Adjustment	Remark
QZZCFM (8 kHz, -20 dB)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	Azimuth Screw (Shown in Fig.3)	1. Insert a test tape (QZZCFM) and start playback in the forward direction. 2. Adjust the azimuth screw for maximum waveform on the oscilloscope and the similar output on L and R channels. 3. When adjusting the azimuth in the reverse direction, repeat the adjustment several times because of a little slip on the forward direction side.

CAUTION :

- Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
- After the adjustment, apply screwlock to the azimuth adjusting screw. (Screw-locking bond: RZZ0L01)

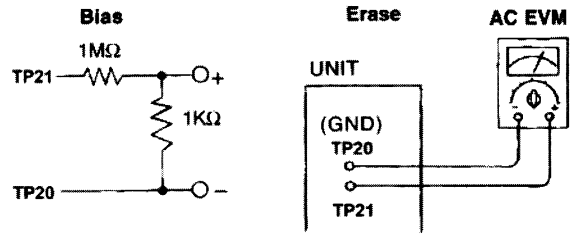
● TAPE SPEED ALIGNMENT

Test Tape	Equipment Connection Electronic Counter	Adjustment	Specification	Remarks
QZZCWAT (3 kHz, -10 dB)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	-	3000 ± 90 Hz	Play mode

● **BIAS AND ERASE VOLTAGE CHECK**

1. Set the unit to TUNER mode.
2. Insert the Normal blank tape (QZZCRA) into DECK and set the unit to "REC" mode (use " ● REC/STOP" key).
3. Measure and make sure that the output is within the standard value.
4. Insert the CrO2 tape (QZZCRX).
5. Repeat steps 2 and 3.

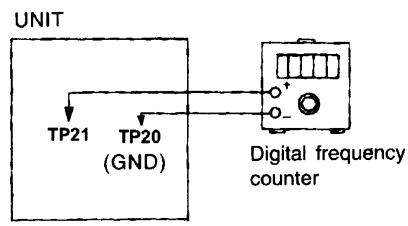
Bias voltage for Deck (Standard value) : 9.0 ± 2.0mV



● **BIAS FREQUENCY ADJUSTMENT (DECK)**

1. Set the unit to TUNER mode.
2. Insert the Normal blank tape (QZZCRA) into DECK and set the unit to "REC" mode (use " ● REC/STOP" key).
3. Adjust L1001 so that the output frequency is within the standard value.

Standard Value : 56 ± 7 kHz



15.2. CD Section

Alignment is unneccessary for CD section of this unit.

15.2.1. Alignment Points

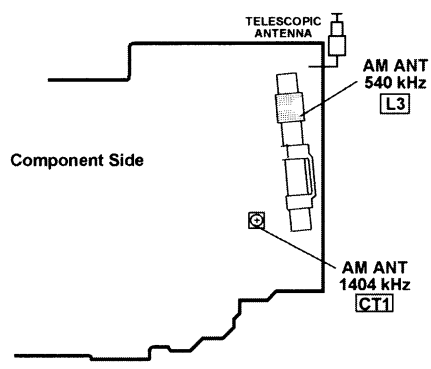


Fig 1

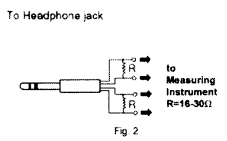


Fig. 2

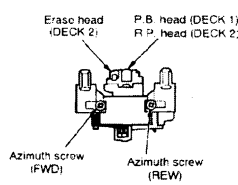


Fig. 3

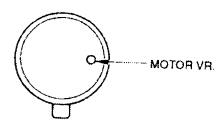
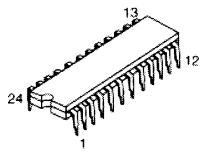
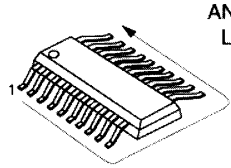
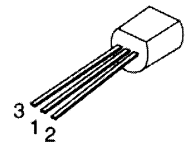
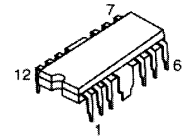
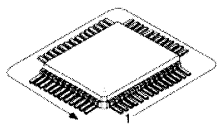
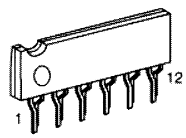
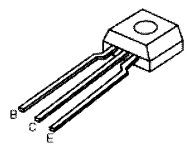
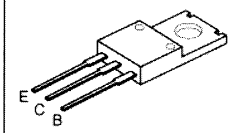
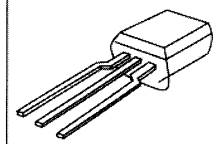
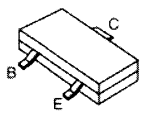
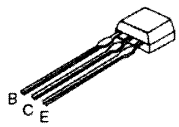
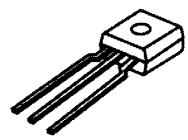
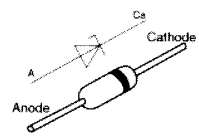


Fig. 4

16 Type Illustrations of ICs, Transistors & Diodes

TA2008AN 	AN8839NSBE2 (28p) AN8739SBE2 (28p) LC72131D (22p) 		PST9123T S81252SGY-Z 	TA8227P 	S1NB20-4101
M38224M6H104 (80p) MN662790RSC (80p) 	BA3313L 	KRA102MTA KRC104MTA KRA111MTA KTC3199BLTA KTC3199GRTA 		KTB1366 	KTA12710YTA KV1360NTM 
2SB709STX 	RVTDTC143EST 	KV1520ATS2 		RVD1SS133TA RB441QT-77 MTZJ5R1BTA MTZJ6R2CTA MTJZ7R5CTA MTZJ8R2BTA MTZJ18BTA	

17 Terminal Functions of ICs

• IC701 (AN8839NSBE2) Servo Amplifier

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input 1
2	PDF	I	Tracking signal input 2
3	VCC	I	Power Supply
4	PDA	I	Focus signal input terminal 1
5	PDB	I	Focus signal input terminal 2
6	LPD	I	APC amp input
7	LD	O	APC amp output
8	RF	O	RF summing output
9	RFIN	I	Detector's input
10	CSBRT	I	Capacitor for OFTR connection
11	CEA	I	Capacitor for HPF amp connection
12	BDO	O	BDO output ("H": drop out)
13	LDON	I	APC control
14	GND	-	Ground
15	/RFDET	O	NRFDET output ("L":detection)
16	PDOWN	O	Power-down input
17	OFTR	O	OFTR output
18	NC	O	N.C.
19	ENV	O	3T-ENV output
20	NC	I	N.C.
21	NC	I	N.C.
22	TEN	I	TE amp input
23	TEOUT	O	TE amp output
24	FEOUT	O	FE amp output
25	FEN	I	FE amp input
26	VREF	O	Reference voltage output
27	TBAL	I	Tracking balance control
28	FBAL	I	Focus balance control

• IC702 (MN662790RSC) Servo Processor/Digital Signal Processor/Digital Filter/D/A Converter

Pin No.	Mark	I/O	Function
1	BCLK	O	N.C.
2	LRCK	O	N.C.
3	SRDATA	O	N.C.
4	DVDD1	I	Power supply input (for digital circuit)
5	DVSS1	I	Gnd (for digitial circuit)
6	TX	O	Digital audio interface signal output (Latches data at first transition)
7	MCLK	I	Microprocessor command clock signal input
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sense signal output (OFT, FESL, MAGEND, NAJEND, POSAD, SFG) (Not used, open)
11	/FLOCK	O	Focus servo feeding signal output ("L": Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L": Feed)
13	BLKCLK	O	Sub-code block clock signal output
14	SQCK	I	External clock signal input for sub-code Q resistor
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H": Mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset signal input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL = "H" (fSMCK = 8.4672MHz) 1/4-divided clock signal of crystal oscillating at MSEL = "L" (fSMCK = 4.2336MHz)
20	CSEL	I	Frequency Selection Terminal H = 33.8688MHz; L = 16.9344MHz
21	TRV	O	N.C.
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON signal output ("L": ON)
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	N.C.
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD,ECS, TRD, FOD, FBAL, TBAL) reference voltage input
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L": detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal output ("H": ON)
41	PLLF2	I/O	N.C.
42	DSLF2	O	Tracking Offset alignment output/DSL Balance Output (DA Output)
43	WVEL	O	N.C.
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias terminal
47	DSLF	I/O	DSL loop filter terminal
48	PLLF	I/O	PLL loop filter terminal
49	VCOF	I/O	VCO loop filter terminal
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	I	Gnd (for analog circuit)
52	EFM	O	EFM signal output
53	PCK	O	PLL extraction clock output (fPCK = 4.321MHz during normal playback)
54	VCOF2	I/O	VCO Loop filter for 33.8688MHz conversion terminal for 16.9344MHz crystal mode, must use other circuit
55	SUBC	O	Sub-code serial data output
56	SBCK	I	Clock input for sub-code serial data
57	VSS	I	Gnd
58	X1	I	Crystal oscillating circuit input (f = 16.9344MHz)
59	X2	O	Crystal oscillating circuit output (f = 16.9344MHz)
60	VDD	I	Power supply input (for oscillating circuit)

Pin No.	Mark	I/O	Function
61	BYTCK	O	Byte clock output
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK = 7.35kHz during normal playback)
63	FCLK	O	Crystal frame clock signal output (fCLK = 7.35 kHz, double = 14.7 kHz
64	IPFLAG	O	Interpolation flag output ("H": Interpolation)
65	FLAG	O	Flag output
66	CLVS	O	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo)
67	CRC	O	Sub-code CRC checked output ("H": OK, "L": NG)
68	DEMPH	O	De-emphasis ON signal output ("H": ON)
69	RESY	O	Frame re-synchronizing signal output
70	IOSEL	I	Mode Switching Terminal
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	I	Gnd
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level: RSEL = "H") (at "L" level: RSEL = "L")
77	IOVDD	I	5V Supply
78	PSEL	I	Test terminal (connected to Gnd)
79	MSEL	I	SMCK oscillating frequency designation input ("L": 4.2336MHz, "H": 8.4672MHz)
80	SSEL	I	SUBQ output mode select ("H": Q-code buffer mode)

- **IC703 (AN8739SBE2) Focus Coil/Tracking Coil/Traverse Motor/Spindle Motor Driver**

Pin No.	Mark	I/O	Function
1	/RST	-	RESET output terminal
2	NC	-	N.C.
3	IN2	I	Motor Drive (2) input
4	PC2	I	Turn table motor drive signal ("L":ON)
5	NC	-	N.C.
6	IN1	I	Motor Driver (1) input
7	NC	I	N.C.
8	PVCC1	I	Power supply (1) for driver
9	PGND1	-	Ground connection (1) for driver
10	NC	-	N.C.
11	D1-	O	Motor driver (1) reverse-action output
12	D1+	O	Motor driver (1) forward-action output
13	D2-	O	Motor driver (2) reverse-action output
14	D2+	O	Motor driver (2) forward-action output
15	D3-	O	Motor driver (3) reverse-action output
16	D3+	O	Motor driver (3) forward-action output
17	D4-	O	Motor driver (4) reverse-action output
18	D4+	O	Motor driver (4) forward-action output
19	NC	-	N.C.
20	PGND2	-	Ground connectin (2) for driver
21	PVCC2	I	Power supply (2) for driver
22	NC	-	N.C.
23	VCC	I	Power supply terminal
24	VREF	I	Reference voltage input
25	IN4	I	Motor driver (4) input
26	IN3	I	Motor driver (3) input
27	RSTIN	I	Reset terminal
28	NC	-	N.C.

- **IC801 (M38224M6H104) Microprocessor**

Pin No.	Mark	I/O	Function
1	VLCD2	-	LCD power source
2	VLCD1	-	LCD power source
3	KEY_1	A-D	Key 1 input
4	REM_CTL	O	Control on/off of remote sensor
5	REG_2	A-D	Region setting 2
6	REG_1	A-D	Region setting 1
7	R_CTL	O	Region control
8	(AD)P.DET	A-D	Power detect input
9	REG_3	I	Region setting 3
10	N.C	O	No connection
11	CD_SEL	I	CD mode selector input
12	TU_SEL	I	Tuner mode selector input
13	TP_SEL	I	Tape mode selector input
14	REC H	I	Record H input
15	B.P.1	O	No connection
16	N.C	O	No connection
17	SEL_IN	I	Function mode selection
18	FREQ_REF _IN	I	Micro-P beatproof reference freq input
19	N.C	O	No connection
20	SQCK	O	CD subcode data clock
21	PCNT	O	Power control output
22	SUBQ	I	CD subcode block clock input
23	REMOTE_IN	I	Remote controller input
24	BLKCK	I	CD subcode block clock input
25	N.C	O	No connection
26	N.C	I	No connection
27	RESET	-	System reset input
28	XOSC IN	O	XOSC INPUT
29	XOSC OUT	O	XOSC OUTPUT
30	OSC IN	-	4.19MHz ceramic OSC input
31	OSC OUT	-	4.19MHz ceramic OSC output
32	VSS	-	GND
33	MBP1	O	Microcomputer beatproof control 1
34	MBP2	O	Microcomputer beatproof control 2
35	MUTE_A	O	Audio mute
36	PLL DO	I	PLL if count input
37	CLOSE_SW	I	CD close detect SW
38	STAT	I	CD status input
29	CD RESET	O	CD RST output
30	REST_SW	I	CD limit SW input for the most inner point
41	MCLK	O	CD signal processor control clock output
42	MDATA	O	CD signal processor control load output
43	MLD	O	CD signal processor control load output
44	N.C	O	No connection
45	N.C	O	No connection
46	N.C	O	No connection
47	T_MUTE	O	Tuner output mute
48	N.C	O	No connection
49	PLL CE	O	PLL chip enable output
50	PLL CLK	O	PLL clock output

Pin No.	Mark	I/O	Function
51	PLL DATA	O	PLL data output
52	TONE 1	O	Tone 1 control output
53	N.C	O	No connection
54	N.C	O	No connection
55	N.C	O	No connection
56	N.C	O	No connection
57	N.C	I	No connection
58~72	SEG...	O	LCD segment output

Pin No.	Mark	I/O	Function
73	VDD	I	Power supply
74	VREF	I	A/D converter reference voltage
75	AVSS	-	GND
76~79	COM3~COM0	I	LCD common output
80	VLCD	I	LCD bias reference voltage input

18 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

  When replacing any of these components, be sure to use only manufacturers's specified parts shown in the parts list.
- The parenthesized indications in the Remarks column specify the areas or color. (Refer to the cover page for area or color.)

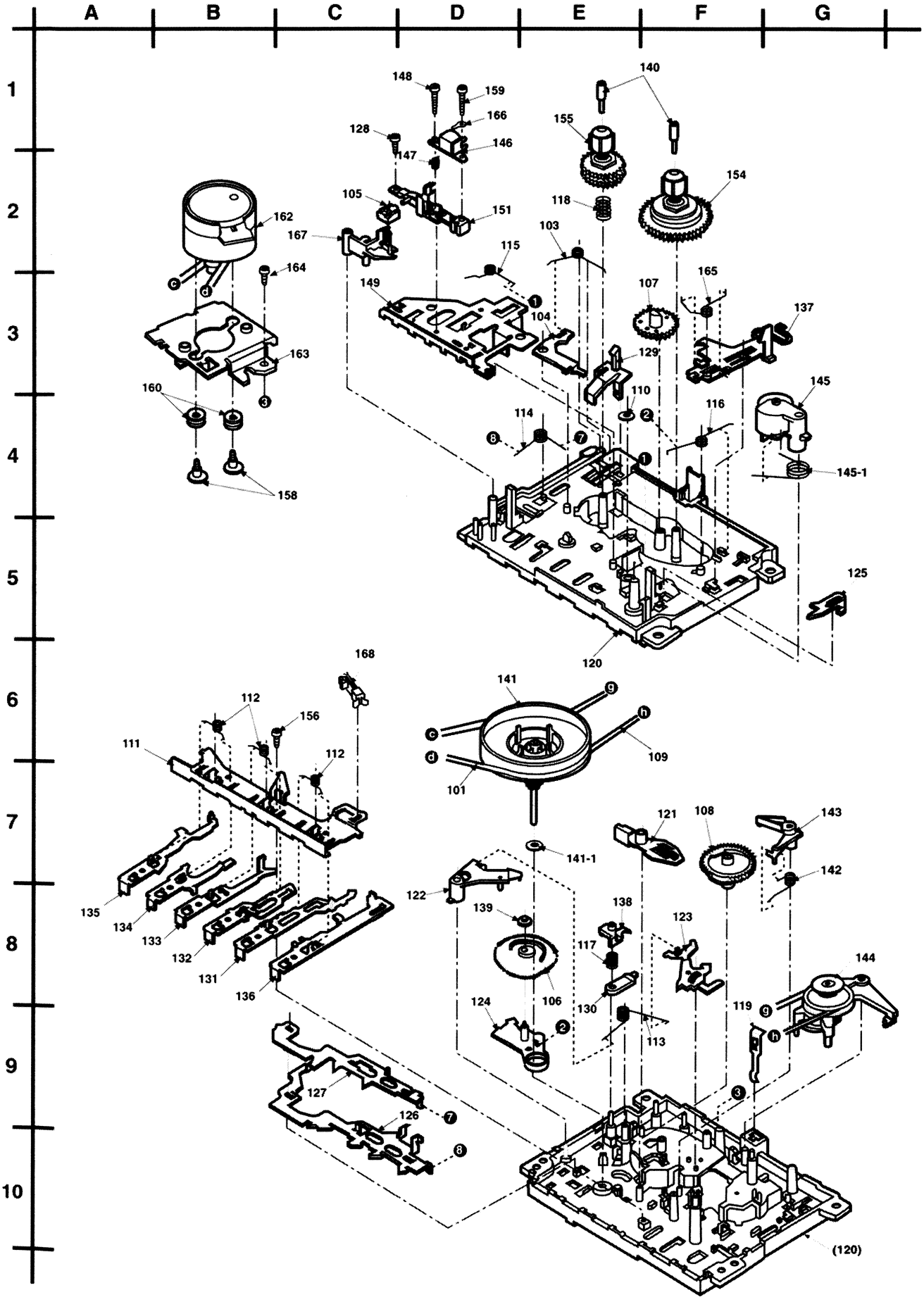
  Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on P.5

  ACHTUNG:
  Die Lasereinheit nicht zerlegen.
  Die Lasereinheit darf nur gegen enie vom Hertsteller spezifizierte Einheit ausgetauscht werden.
- Capacitor values are in microfarad (μF) unless specified otherwise, P=Pico-farads(pF); Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000(ohms).
- The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the lows govening part and product retention. After the end of this period, the assembly will no longer be available.
- [M] indicates in the Remarks columns indicates parts that are supplied by **MESA**.
- The "(SF)" mark denotes the standard part.
- Remote Control Unit: Supply period for three years from terminal of production.
- Reference for O/I book languages are as follows :

Ar : Arabic	Cf : Canadian French	Cz : Czech	Da : Danish
Du : Dutch	En : English	Fr : French	Ge : German
It : Italian	Ko : Korean	Po : Polish	Ru : Russian
Sp : Spanish	Sw : Swedish	Co : Traditional Chinese	Cn : Simplified Chinese

18.1. Deck Mechanism (RAA0940)

18.1.1. Deck Mechanism Parts Location



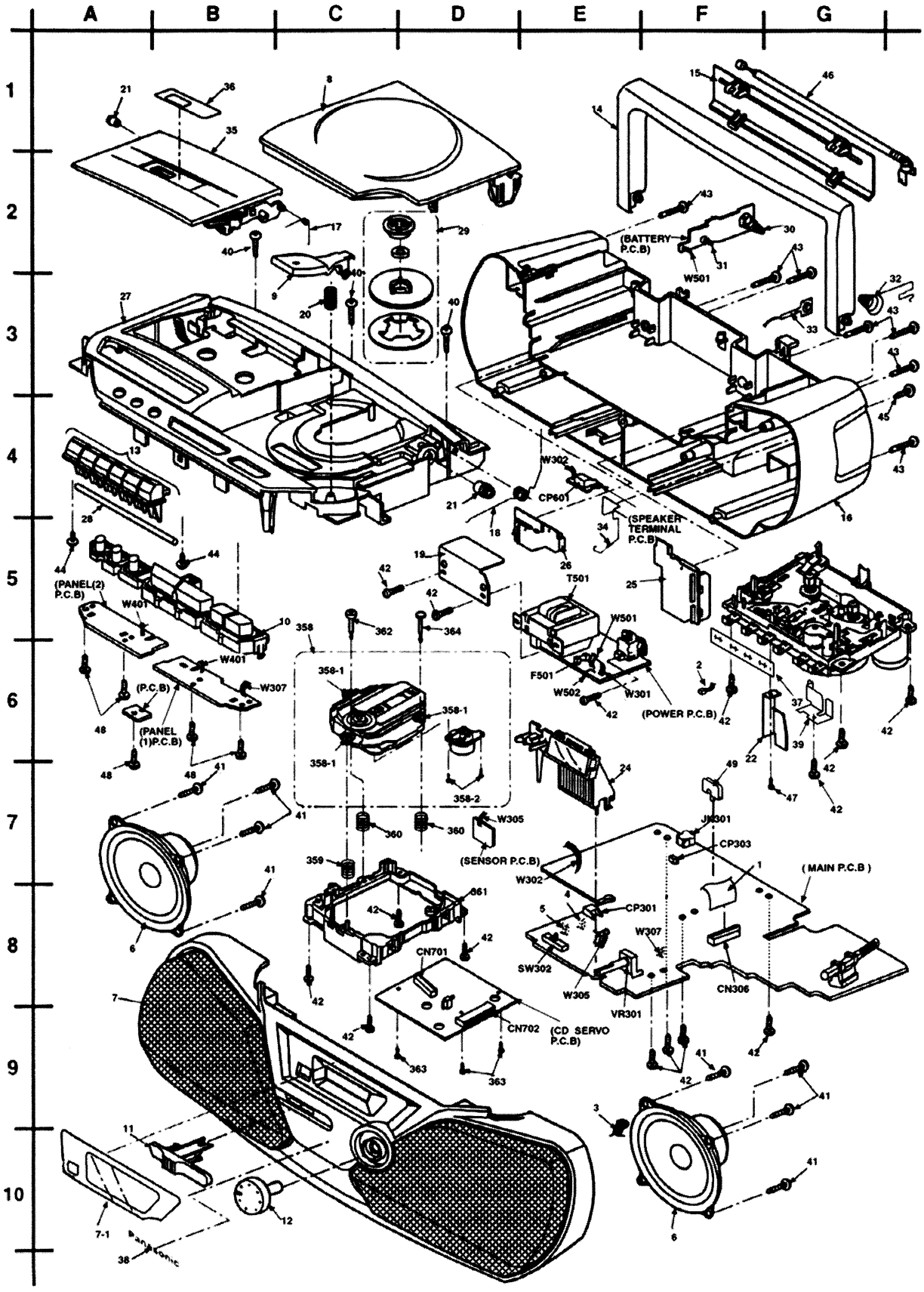
18.1.2. Deck Mechansim Part Lists

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RDV0021	MAIN BELT 'D'	[M]
103	RMB0109-1	BRAKE SPRING	[M]
104	RML0116	BRAKE	[M]
105	RBR2CY009	ERASE HEAD	[M]
106	RDG0057-1	IDLER GEAR	[M]
107	RDG0059	FF RELAY GEAR	[M]
108	RDK0005-1	CAM GEAR	[M]
109	RDV0006-1	RF BELT	[M]
110	RHW16009	CAPSTAN WASHER	[M]
111	RMA0109	BACK PLATE	[M]
112	RMB0043-1	ROD OPERATION SPRING	[M]
113	RMB0045-1	A.S. SPRING	[M]
114	RMB0046-1	LOCK PLATE SPRING	[M]
115	RMB0047	HEAD PANEL SPRING	[M]
116	RMB0048-1	IDLER LEVER SPRING	[M]
117	RMB0053	PAUSE LEVER SPRING	[M]
118	RMB0125	BACK TENSION SPRING	[M]
119	RMC0061	PACK SPRING	[M]
120	RFKRCT090P-K	CHASSIS ASS'Y	[M]
121	RML0071-1	SWING LEVER	[M]
122	RML0072-1	AS RELEASE LEVER	[M]
123	RML0073-1	AS PROTECT LEVER	[M]
124	RML0074-1	IDLER LEVER	[M]
125	RML0076	EJECT SELECTION LEVE	[M]
126	RML0077-1	LOCK PLATE	[M]
127	RML0078	FUNCTION PLATE	[M]
128	XTN2+4F	EARTH LUG SCREW	[M]
129	RML0081-2	RECORD SAFETY LEVER	[M]
130	RML0082	PAUSE LEVER	[M]
131	RMM0023-1	PLAY ROD	[M]
132	RMM0024	REW ROD	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
133	RMM0025	FF ROD	[M]
134	RMM0026	STOP ROD	[M]
135	RMM0027	PAUSE ROD	[M]
136	RMM0028	REC ROD	[M]
137	RMM0029-1	EJECT SLIDE LEVER	[M]
138	RMR0211-1	PAUSE BUSH	[M]
139	RMR0227	IDLER GEAR BUSH	[M]
140	RMS0055-1	REEL SHAFT	[M]
141	RXF0020	FLYWHEEL ASSY	[M]
141-1	RHW21008	FLYWHEEL WASHER	[M]
142	RMB0044	TRIGGER SPRING	[M]
143	RML0075	TRIGGER LEVER	[M]
144	RXP0014	RF CLUTCH ASSY	[M]
145	RXP0015	PINCH ROLLER ASSY	[M]
145-1	RMB0049	PINCH ARM SPRING	[M]
146	RBR4CM005-T	R/P HEAD	[M]
147	RMB0059	AZIMUT SPRING	[M]
148	RHD20049	AZIMUT SCREW	[M]
149	RMA1080	HEAD PANEL	[M]
151	RMR0149	HEAD BASE	[M]
154	RXR0004	TAKE UP REEL ASSY	[M]
155	RXR0005	SUPPLY REEL ASSY	[M]
156	XTN2+6J	BACK PLATE SCREW	[M]
158	RHD26002	MOTOR SCREW	[M]
159	XTN2+8F	R/P SCREW	[M]
160	RMG0102-1	MOTOR RUB. CUSHION	[M]
162	RFM179ZA	DC MOTOR ASS'Y	[M]
163	RMA0108	MOTOR BK	[M]
164	XTN26+8J	MOTOR BK SCREW	[M]
165	RME0098-2	E SLIDE LEVER SPRING	[M]
166	RJR0033	EARTH LUG	[M]
167	RML0080	ERASE HEAD ARM	[M]
168	RSH1A006-U	LEAF SWITCH	[M]

18.2. Cabinet & CD Loading Mechanism

18.2.1. Cabinet & CD Loading Machanism Parts Location



18.2.2. Cabinet & CD Loading Machanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REEX0085	CD FFC WIRE	[M]
2	REX0836	TAPE HEAD WIRE	[M]
3	REXX0219	SPEAKER WIRE	[M]
4	REXX0220	MOTOR WIRE	[M]
5	REXX0222	LEAF SW WIRE	[M]
6	RAS10P30-G	SPEAKER	[M]
7	RFKGXD11EB-G	FRONT CAB ASS'Y	[M]G
7	RFKGXD11P-W	FRONT CAB ASS'Y	[M]W
7-1	RKWX0143B-Q	LCD PANEL	[M]
8	RGKX0054-S	CD LID	[M]
9	RGUX0344-S	CD EJECT BUTTON	[M]
10	RGUX0345-S	OPERATION BUTTON	[M]
11	RGVX0020-S	FUNCTION KNOB	[M]
12	RGWX0051-S	VOLUME KNOB	[M]
13	RGZX0034-H	MECHA BUTTON	[M]
14	RKHX0012-H	HANDLE	[M]
15	RKK318ZC-94	BATTERY COVER	[M]
16	RFKHXD11EBW	BACK CAB ASS'Y	[M]
16	RFKHXD11EGW	BACK CAB ASS'Y	[M]
16	RFKHXD11E-W	BACK CAB ASS'Y	[M]
17	RME0229	CASSETTE OPEN SPRING	[M]
18	RMEX0009	CD OPEN SPRING	[M]
19	RMA1007	SHIELD PLATE	[M]
20	RMB0509	SPRING (CD BUTTON)	[M]
21	RDG0288	DAMPER GEAR	[M]
22	RMCX0018	RECORD SPRING	[M]
24	RMNX0032	LCD HOLDER	[M]
25	RMVX0050	SPEAKER BOX COVER L	[M]
26	RMVX0051	SPEAKER BOX COVER R	[M]
27	RKQX0010-S	TOP CAB	[M]
28	SUX102	MECHA BUTTON SHAFT	[M]
29	RFKNXDT39GCK	CD HOLDER ASS'Y	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
30	RJC511XB	BATT. TERMINAL	[M]
31	RJC70031ZC	BATT. TERMINAL	[M]
32	RJCX0005	BATT. TERMINAL	[M]
33	RJRX0006	UM3 TERMINAL PLATE	[M]
34	RJRX0007	ANTENNA TERMINAL	[M]
35	RKFX0081-S	CASS LID	[M]
36	RKWX0144-Q	CASS PANEL	[M]
37	RMXX0004-1	SPACER	[M]
38	RGB0061-S	PANA BADGE	[M]
39	RMAX0046	CASS. LID BRACKET	[M]
40	XTN3+12GFN	SCREW	[M]G
40	XTN3+12GFZ	SCREW (TOP CAB)	[M]W
41	XTV3+10G	SCREW (SPEAKER)	[M]
42	XTV3+12G	SCREW	[M]
43	XTV3+20G	REAR CAB SCREW	[M]
44	XTWS3+8T	SCREW	[M]
45	XYN3+F15FY	SCREW	[M]
46	XEARR210CA-C	ROD ANTENNA	[M]
47	XTN2+3F	SCREW	[M]
48	XTV26+10G	SCREW (ORNAMENT)	[M]
49	RMY0205	HEATSINK	[M]
		TRAVERSE DECK	
358	RAE0152Z-1C	TRAVERSE	[M]
358-1	SHGD113-1	FLOATING CUSHION	[M]
358-2	SNSD38	TRV MOTOR ASS'Y SCRE	[M]
359	RME0142	FLOATING SPRING A	[M]
360	RME0109	FLOATING SPRING B	[M]
361	RMR0698-K1	TRAVERSE CHASSIS	[M]
362	RMS0627	FIXED PIN B	[M]
363	XTN2+6G	SCREW	[M]
364	RMS0350	FIXED PIN A	[M]

18.3. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REP2880A-N	CD SERVO P.C.B.	
	REPX0196F	MAIN(TUNER) P.C.B./PANEL(1)/PANEL(2)/SPEAKER TERMINAL P.C.B./ SENSOR P.C.B./BATTERY P.C.B./POWER P.C.B.	
		INTEGRATED CIRCUITS	
IC1	TA2008AN	IC TUNER	[M]
IC2	LC72131D	IC PLL	[M]
IC302	S81252SGY-Z	IC 5.2V REGULATOR	[M] ⚠
IC303	TA8227P	IC POWER	[M] ⚠
IC501	S1NB20-4101	IC BRIDGE DIODE	[M] ⚠
IC701	AN8839NSBE2	IC, RF HEAD AMP	[M]
IC702	MN662790RSC	IC, LSI	[M]
IC703	AN8739SBE2	IC, 4CH DRIVER	[M]
IC801	M38224M6H104	IC MICON	[M]
IC802	PST9123T	IC RESET	[M]
IC1001	BA3313L	IC PRE AMP	[M]
		TRANSISTORS	
Q1	KTC3199GRTA	TRANSISTOR	[M]
Q101	KTC3199GRTA	TRANSISTOR	[M]
Q103	KTC3199GRTA	TRANSISTOR	[M]
Q201	KTC3199GRTA	TRANSISTOR	[M]
Q203	KTC3199GRTA	TRANSISTOR	[M]
Q301	KTB1366	TRANSISTOR	[M]
Q302	KTC3199BLTA	TRANSISTOR	[M]
Q303	KTA12710YTA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q304	KTC3199BLTA	TRANSISTOR	[M]
Q305	KTA12710YTA	TRANSISTOR	[M]
Q306	KTC3199BLTA	TRANSISTOR	[M]
Q308	KRA102MTA	TRANSISTOR	[M]
Q701	2SB709STX	TRANSISTOR	[M]
Q801	KTC3199GRTA	TRANSISTOR	[M]
Q802	KTC3199GRTA	TRANSISTOR	[M]
Q805	KRA111MTA	TRANSISTOR	[M]
Q806	KTC3199GRTA	TRANSISTOR	[M]
Q807	KRC104MTA	TRANSISTOR	[M]
Q810	RVTDTC143EST	TRANSISTOR	[M]
Q811	RVTDTC143EST	TRANSISTOR	[M]
Q813	RVTDTC143EST	TRANSISTOR	[M]
Q1001	KTC3199BLTA	TRANSISTOR	[M]
		DIODES	
D1	KV1520ATS2	DIODE	[M]
D2	KV1360NTM	DIODE	[M]
D3	KV1360NTM	DIODE	[M]
D301	RVD1SS133TA	DIODE	[M]
D302	RB441QT-77	DIODE	[M]
D303	RVD1SS133TA	DIODE	[M]
D304	MTZJ7R5CTA	DIODE	[M]
D305	RVD1SS133TA	DIODE	[M]
D306	RVD1SS133TA	DIODE	[M]
D307	RVD1SS133TA	DIODE	[M]
D308	RVD1SS133TA	DIODE	[M]
D309	MTZJ6R2CTA	DIODE	[M]
D310	RVD1SS133TA	DIODE	[M]
D311	RB441QT-77	DIODE	[M]
D312	MTZJ18BTA	DIODE	[M] ⚠

RX-D11

Ref. No.	Part No.	Part Name & Description	Remarks
D614	MTZJ5R1BTA	DIODE	[M]
D801	RVD1SS133TA	DIODE	[M]
D802	MTZJ8R2BTA	DIODE	[M]
D1001	RVD1SS133TA	DIODE	[M]
		VARIABLE RESISTORS	
VR301	RRV12B02B14V	VR VOLUME	[M]
		SWITCHES	
S701	RSH1A043-U	SW REST	[M]
SW302	RSS3D006-G	SW FUNCTION	[M]
SW601	EVQPAD05R	SW REV SKIP	[M]
SW602	EVQPAD05R	SW FWD SKIP	[M]
SW603	EVQPAD05R	SW PLAY/PAUSE	[M]
SW604	EVQPAD05R	SW FM MODE/CLEAR	[M]
SW605	EVQPAD05R	SW PLAY MODE	[M]
SW606	EVQPAD05R	SW MEMORY	[M]
SW607	EVQPAD05R	SW TONE/XBS	[M]
SW802	RSH1A012-U	SW CD LEAF	[M]
SW1001	RSS2F001-G	SW RECORD	[M]
		CONNECTORS	
CN306	RJS1A6819-J	CONNECTOR	[M]
CN701	RJU035T016-1	16P FFC CONNECTOR	[M]
CN702	RJS1A6719-1Q	19P FFC CONNECTOR	[M]
CP301	RJP3G9YA	CONNECTOR	[M]
CP303	RJP4G18ZA	SOCKET	[M]
CP601	RJP3G9YA	SOCKET	[M]
		TRIMMER	
CT1	RCVFMA10T01S	TRIMMER CAPACITOR	[M]
		COILS & TRANSFORMERS	
L2	RLQY30S1W-F	FM COIL	[M]
L3	RLV2C041-0	FERRITE ANTENNA	[M]
L4	RLD4Y45-F	FM COIL	[M]
L6	RL02B131-T	AM OSC COIL	[M]
L7	RLQA101KT-G	INDUCTOR	[M]
L8	RLQY30S1W-F	FM COIL	[M]
L310	RLQZB100KT-D	PRI COIL	[M]
L801	RLQA2R2KT-G	INDUCTOR	[M]
L819	RLQA2R2KT-G	INDUCTOR	[M]
L1001	RL09B17-T	BIAS OSC COIL	[M]
T1	RLI2B015-T	AM IFT	[M]
T501	RTP1K1B010-X	TRANSFORMER	[M] ⚠
		COMPONENT COMBINATION	
Z801	RSL5257-G	LCD	[M]
Z802	RCDRPM6937	REMOTE SENSOR	[M]
		CERAMIC FILTERS	
CF1	RLFFETNL02AL	FM CF	[M]
CF3	RLFDFT20AL	FM DISCRIMINATOR	[M]
CF4	RLFCFA459L4B	AM FILTER	[M]
		OSCILLATORS	
X2	RSXZ456KM01	19KHZ OSC	[M]
X3	RSXD7M20C01	X'TAL OSC	[M]
X701	RSXZ16M9M01T	CERAMIC OSC	[M]
X802	RSXZ4M19Z01T	MICON CRYSTAL	[M]
		FUSES	
F501	XBA2C12TB0L	FUSE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		FUSE HOLDERS	
FH501	RJF0028	FUSECLIP	[M]
FH502	RJF0028	FUSECLIP	[M]
		FUSE PROTECTOR	
FP301	RSFMB012KT-L	FUSE PROTECTOR	[M] ⚠
FP501	RSFMB20KT-L	PROTECTOR	[M] ⚠
		JACKS	
JK301	RJJ37TK09	JK PHONE	[M]
JK501	RJJ1SE01-X	JK AC INLET (SW501)	[M] ⚠
		WIRES	
W301	REXX0218	TRANSFORMER TO MAIN	[M]
W302	RWJ9003220SS	MAIN TO SPEAKER	[M]
W307	REXX0221	PANEL TO MAIN	[M]
W401	RWJ9002080SS	PANEL TO PANEL	[M]
W501	REU08H240QS	POWER TO BATT WIRE	[M]
W502	RWJ8902170SS	POWER TO BATT WIRE2	[M]
		RESISTORS	
R2	ERDS2TJ103T	10K 1/4W	[M]
R3	ERDS2TJ332T	3.3K 1/4W	[M]
R4	ERDS2TJ472T	4.7K 1/4W	[M]
R5	ERDS2TJ221T	220 1/4W	[M]
R6	ERDS2TJ104T	100K 1/4W	[M]
R8	ERDS2TJ104T	100K 1/4W	[M]
R9	ERDS2TJ104T	100K 1/4W	[M]
R11	ERDS2TJ223T	22K 1/4W	[M]
R12	ERDS2TJ103T	10K 1/4W	[M]
R13	ERDS2TJ474T	470K 1/4W	[M]
R14	ERDS2TJ474T	470K 1/4W	[M]
R16	ERDS2TJ104T	100K 1/4W	[M]
R17	ERDS2TJ222T	2.2K 1/4W	[M]
R20	ERDS2TJ223T	22K 1/4W	[M]
R21	ERDS2TJ472T	4.7K 1/4W	[M]
R22	ERDS2TJ102T	1K 1/4W	[M]
R23	ERDS2TJ223T	22K 1/4W	[M]
R24	ERDS2TJ103T	10K 1/4W	[M]
R25	ERDS2TJ223T	22K 1/4W	[M]
R26	ERDS2TJ103T	10K 1/4W	[M]
R27	ERDS2TJ332T	3.3K 1/4W	[M]
R28	ERDS2TJ223T	22K 1/4W	[M]
R29	ERDS2TJ103T	10K 1/4W	[M]
R30	ERDS2TJ472T	4.7K 1/4W	[M]
R31	ERDS2TJ222T	2.2K 1/4W	[M]
R32	ERDS2TJ331T	330 1/4W	[M]
R50	ERDS2TJ104T	100K 1/4W	[M]
R51	ERDS2TJ103T	10K 1/4W	[M]
R91	ERDS2TJ330T	33 1/4W	[M]
R108	ERDS2TJ562T	5.6K 1/4W	[M]
R110	ERDS2TJ682T	6.8K 1/4W	[M]
R111	ERDS2TJ562T	5.6K 1/4W	[M]
R113	ERDS2TJ183T	18K 1/4W	[M]
R114	ERDS2TJ562T	5.6K 1/4W	[M]
R115	ERDS2TJ472T	4.7K 1/4W	[M]
R116	ERDS2TJ222T	2.2K 1/4W	[M]
R117	ERDS2TJ122T	1.2K 1/4W	[M]
R123	ERDS2TJ472T	4.7K 1/4W	[M]
R125	ERDS2TJ680T	68 1/4W	[M]
R127	ERDS2TJ181T	180 1/4W	[M]
R140	ERDS2TJ102T	1K 1/4W	[M]
R208	ERDS2TJ562T	5.6K 1/4W	[M]
R210	ERDS2TJ682T	6.8K 1/4W	[M]
R211	ERDS2TJ562T	5.6K 1/4W	[M]
R213	ERDS2TJ183T	18K 1/4W	[M]
R214	ERDS2TJ562T	5.6K 1/4W	[M]
R215	ERDS2TJ472T	4.7K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R216	ERDS2TJ222T	2.2K 1/4W	[M]
R217	ERDS2TJ122T	1.2K 1/4W	[M]
R223	ERDS2TJ472T	4.7K 1/4W	[M]
R225	ERDS2TJ680T	68 1/4W	[M]
R227	ERDS2TJ181T	180 1/4W	[M]
R240	ERDS2TJ102T	1K 1/4W	[M]
R310	ERDS2TJ393T	39K 1/4W	[M]
R311	ERDS2TJ183T	18K 1/4W	[M]
R312	ERDS2TJ222T	2.2K 1/4W	[M]
R313	ERDS2TJ473T	47K 1/4W	[M]
R314	ERDS2TJ331T	330 1/4W	[M]
R315	ERDS2TJ122T	1.2K 1/4W	[M]
R316	ERDS2TJ331T	330 1/4W	[M]
R317	ERDS2TJ151T	150 1/4W	[M]
R319	ERDS2TJ151T	150 1/4W	[M]
R320	ERDS2TJ472T	4.7K 1/4W	[M]
R321	ERDS2TJ151T	150 1/4W	[M]
R322	ERDS2TJ151T	150 1/4W	[M]
R323	ERDS2TJ332T	3.3K 1/4W	[M]
R324	ERDS2TJ333T	33K 1/4W	[M]
R325	ERDS2TJ123T	12K 1/4W	[M]
R326	ERDS2TJ223T	22K 1/4W	[M]
R327	ERDS2TJ223T	22K 1/4W	[M]
R328	ERDS2TJ333T	33K 1/4W	[M]
R329	ERDS2TJ273T	27K 1/4W	[M]
R330	ERDS2TJ474T	470K 1/4W	[M]
R335	ERDS2TJ103T	10K 1/4W	[M]
R336	ERDS2TJ122T	1.2K 1/4W	[M]
R340	ERDS2TJ103T	10K 1/4W	[M]
R601	ERDS2TJ101T	100 1/4W	[M]
R602	ERDS2TJ102T	1K 1/4W	[M]
R603	ERDS2TJ102T	1K 1/4W	[M]
R604	ERDS2TJ122T	1.2K 1/4W	[M]
R605	ERDS2TJ182T	1.8K 1/4W	[M]
R606	ERDS2TJ222T	2.2K 1/4W	[M]
R607	ERDS2TJ272T	2.7K 1/4W	[M]
R701	ERJ6GEYJ4R7V	4.7 1/10W	[M]
R702	ERJ6GEYJ103V	10K 1/10W	[M]
R704	ERJ6GEYJ102V	1K 1/10W	[M]
R705	ERJ6GEYJ154V	150K 1/10W	[M]
R706	ERJ6GEYJ102V	1K 1/10W	[M]
R707	ERJ6GEYJ393V	39K 1/10W	[M]
R708	ERJ6GEYJ223V	22K 1/10W	[M]
R709	ERJ6GEYJ683V	68K 1/10W	[M]
R711	ERJ6GEYJ823V	82K 1/10W	[M]
R712	ERJ8GEYJ221V	220 1/8W	[M]
R714	ERJ6GEY0R00V	0 1/10W	[M]
R715	ERJ6GEYJ102V	1K 1/10W	[M]
R717	ERJ6GEYJ102V	1K 1/10W	[M]
R718	ERJ6GEYJ102V	1K 1/10W	[M]
R721	ERJ6GEYJ101V	100 1/10W	[M]
R723	ERJ6GEYJ682V	6.8K 1/10W	[M]
R724	ERJ6GEYJ183V	18K 1/10W	[M]
R725	ERJ6GEYJ391V	390 1/10W	[M]
R727	ERJ6GEYJ392V	3.9K 1/10W	[M]
R728	ERJ6GEYJ392V	3.9K 1/10W	[M]
R729	ERJ6GEYJ392V	3.9K 1/10W	[M]
R731	ERJ6GEYJ682V	6.8K 1/10W	[M]
R735	ERJ6GEYJ101V	100 1/10W	[M]
R736	ERJ6GEYJ101V	100 1/10W	[M]
R741	ERJ6GEYJ473V	47K 1/10W	[M]
R742	ERJ6GEYJ224V	220K 1/10W	[M]
R744	ERJ6GEYJ124V	120K 1/10W	[M]
R749	ERJ6GEYJ472V	4.7K 1/10W	[M]
R753	ERJ6GEYJ100V	10 1/10W	[M]
R801	ERDS2TJ473T	47K 1/4W	[M]
R802	ERDS2TJ473T	47K 1/4W	[M]
R803	ERDS2TJ473T	47K 1/4W	[M]
R804	ERDS2TJ103T	10K 1/4W	[M]
R807	ERDS2TJ104T	100K 1/4W	[M]
R808	ERDS2TJ224T	220K 1/4W	[M]
R810	ERDS2TJ153T	15K 1/4W	[M]
R812	ERDS2TJ152T	1.5K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R813	ERDS2TJ333T	33K 1/4W	[M]
R814	ERDS2TJ104T	100K 1/4W	[M]
R815	ERDS2TJ104T	100K 1/4W	[M]
R817	ERDS2TJ104T	100K 1/4W	[M]
R818	ERDS2TJ472T	4.7K 1/4W	[M]
R819	ERDS2TJ472T	4.7K 1/4W	[M]
R820	ERDS2TJ472T	4.7K 1/4W	[M]
R821	ERDS2TJ472T	4.7K 1/4W	[M]
R822	ERDS2TJ472T	4.7K 1/4W	[M]
R823	ERDS2TJ472T	4.7K 1/4W	[M]
R824	ERDS2TJ472T	4.7K 1/4W	[M]
R825	ERDS2TJ472T	4.7K 1/4W	[M]
R828	ERDS2TJ105T	1M 1/4W	[M]
R830	ERDS2TJ101T	100 1/4W	[M]
R831	ERDS2TJ103T	10K 1/4W	[M]
R832	ERDS2TJ103T	10K 1/4W	[M]
R833	ERDS2TJ103T	10K 1/4W	[M]
R834	ERDS2TJ103T	10K 1/4W	[M]
R835	ERDS2TJ103T	10K 1/4W	[M]
R837	ERDS2TJ333T	33K 1/4W	[M]
R838	ERDS2TJ473T	47K 1/4W	[M]
R839	ERDS2TJ474T	470K 1/4W	[M]
R841	ERDS2TJ102T	1K 1/4W	[M]
R842	ERDS2TJ102T	1K 1/4W	[M]
R843	ERDS2TJ102T	1K 1/4W	[M]
R845	ERDS2TJ102T	1K 1/4W	[M]
R846	ERDS2TJ472T	4.7K 1/4W	[M]
R847	ERDS2TJ103T	10K 1/4W	[M]
R848	ERDS2TJ472T	4.7K 1/4W	[M]
R849	ERDS2TJ472T	4.7K 1/4W	[M]
R850	ERDS2TJ103T	10K 1/4W	[M]
R851	ERDS2TJ103T	10K 1/4W	[M]
R852	ERDS2TJ103T	10K 1/4W	[M]
R860	ERDS2TJ472T	4.7K 1/4W	[M]
R865	ERDS2TJ472T	4.7K 1/4W	[M]
R1001	ERDS2TJ221T	220 1/4W	[M]
R1002	ERDS2TJ331T	330 1/4W	[M]
R1003	ERDS2TJ473T	47K 1/4W	[M]
R1004	ERDS2TJ8R2T	8.2 1/4W	[M]
R1005	ERDS2TJ223T	22K 1/4W	[M]
R1006	ERDS2TJ101T	100 1/4W	[M]
R1101	ERDS2TJ183T	18K 1/4W	[M]
R1102	ERDS2TJ272T	2.7K 1/4W	[M]
R1103	ERDS2TJ224T	220K 1/4W	[M]
R1104	ERDS2TJ682T	6.8K 1/4W	[M]
R1105	ERDS2TJ222T	2.2K 1/4W	[M]
R1106	ERDS2TJ680T	68 1/4W	[M]
R1201	ERDS2TJ183T	18K 1/4W	[M]
R1202	ERDS2TJ272T	2.7K 1/4W	[M]
R1203	ERDS2TJ224T	220K 1/4W	[M]
R1204	ERDS2TJ682T	6.8K 1/4W	[M]
R1205	ERDS2TJ222T	2.2K 1/4W	[M]
R1206	ERDS2TJ680T	68 1/4W	[M]
		CAPACITORS	
C1	ECBT1H470J5	47P 50V	[M]
C2	ECBT1H100JC5	10P 50V	[M]
C3	ECFR1C223MR	0.022 16V	[M]
C4	ECBT1H102KB5	1000P 50V	[M]
C5	ECBT1H5R6KC5	5.6P 50V	[M]
C6	ECBT1H102KB5	1000P 50V	[M]
C7	ECBT1H120JC5	12P 50V	[M]
C8	ECBT1H102KB5	1000P 50V	[M]
C9	ECBT1H102KB5	1000P 50V	[M]
C10	ECBT1H100JC5	10P 50V	[M]
C12	ECBT1H331KB5	330P 50V	[M]
C13	ECEA1CU100B	10 16V	[M]
C14	ECBT1H102KB5	1000P 50V	[M]
C15	ECFR1C683MR	0.068 16V	[M]
C16	ECFR1C823MR	0.082 16V	[M]
C17	ECFR1C823MR	0.082 16V	[M]
C18	ECFR1C333MR	0.033 16V	[M]

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Ref. No.	Part No.	Part Name & Description	Remarks
C19	ECFR1C333MR	0.033 16V	[M]
C20	ECEA1HU010B	1 50V	[M]
C21	ECEA1HU010B	1 50V	[M]
C22	ECEA1HU4R7B	4.7 50V	[M]
C23	ECFR1C333MR	0.033 16V	[M]
C24	ECFR1C333MR	0.033 16V	[M]
C30	ECBT1H331KB5	330P 50V	[M]
C31	ECBT1C103MS5	0.01 16V	[M]
C32	ECBT1H102KB5	1000P 50V	[M]
C33	ECBT1H102KB5	1000P 50V	[M]
C34	ECBT1H102KB5	1000P 50V	[M]
C35	ECEA1AKA101B	100 10V	[M]
C36	ECEA1AU101B	100 10V	[M]
C37	ECBT1C103MS5	0.01 16V	[M]
C39	ECBT1H120JC5	12P 50V	[M]
C40	ECBT1C222MR5	2200P 16V	[M]
C42	ECBT1H180JC5	18P 50V	[M]
C43	ECBT1H101KB5	100P 50V	[M]
C44	ECEA1HKA2R2B	2.2 50V	[M]
C45	ECBT1H102KB5	1000P 50V	[M]
C48	ECEA1HU010B	1 50V	[M]
C49	ECBT1H102KB5	1000P 50V	[M]
C50	ECBT1H102KB5	1000P 50V	[M]
C51	ECEA1HU010B	1 50V	[M]
C53	ECBT1H102KB5	1000P 50V	[M]
C54	ECBT1H102KB5	1000P 50V	[M]
C60	ECBT1H102KB5	1000P 50V	[M]
C92	ECBT1H331KB5	330P 50V	[M]
C98	ECBT1H331KB5	330P 50V	[M]
C99	ECBT1H102KB5	1000P 50V	[M]
C109	ECEA1HU0R1B	1 50V	[M]
C110	ECEA1HUR22B	0.22 50V	[M]
C112	ECEA1HU2R2B	2.2 50V	[M]
C113	ECBT1C103MS5	0.01 16V	[M]
C115	ECEA1HU010B	1 50V	[M]
C116	ECBT1H102KB5	1000P 50V	[M]
C117	ECEA1AU101B	100 10V	[M]
C118	ECEA1AU101B	100 10V	[M]
C120	ECEA1AU471B	470 10V	[M]
C121	ECBT1H102KB5	1000P 50V	[M]
C125	RCQB2A104KM	0.1 100V	[M]
C130	ECBT1C472KR5	4700P 16V	[M]
C140	ECBT1H102KB5	1000P 1/4W	[M]
C209	ECEA1HU0R1B	1 50V	[M]
C210	ECEA1HUR22B	0.22 50V	[M]
C212	ECEA1HU2R2B	2.2 50V	[M]
C213	ECBT1C103MS5	0.01 16V	[M]
C215	ECEA1HU010B	1 50V	[M]
C216	ECBT1H102KB5	1000P 50V	[M]
C217	ECEA1AU101B	100 10V	[M]
C218	ECEA1AU101B	100 10V	[M]
C220	ECEA1AU471B	470 10V	[M]
C221	ECBT1H102KB5	1000P 50V	[M]
C225	RCQB2A104KM	0.1 100V	[M]
C230	ECBT1C472KR5	4700P 16V	[M]
C240	ECBT1H102KB5	1000P 1/4W	[M]
C313	ECBT1H561KB5	560P 50V	[M]
C314	ECEA1AU470B	47 10V	[M]
C315	ECBT1H102KB5	1000P 50V	[M]
C316	ECEA1AU101B	100 10V	[M]
C317	ECA1CM222EV	2200 16V	[M]
C318	ECEA1CU220B	22 16V	[M]
C319	ECBT1H102KB5	1000P 50V	[M]
C320	ECEA1AU220B	22 10V	[M]
C321	ECEA1HU010B	1 50V	[M]
C322	ECBT1H102KB5	1000P 50V	[M]
C323	ECEA1CU220B	22 16V	[M]
C324	ECBT1H102KB5	1000P 50V	[M]
C325	ECEA1CU101B	100 16V	[M]
C330	ECBT1C103MS5	0.01 16V	[M]
C331	ECEA1AU221B	220 10V	[M]
C333	ECBT1C103MS5	0.01 16V	[M]
C335	ECBT1C103MS5	0.01 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C340	ECA0JM332EV	3300 6.3V	[M]
C341	ECBT1H102KB5	1000P 50V	[M]
C342	ECBT1H102KB5	1000P 50V	[M]
C501	ECKR1H103ZF5	0.01 50V	[M]
C502	ECKR1H103ZF5	0.01 50V	[M]
C503	ECKR1H103ZF5	0.01 50V	[M]
C504	ECKR1H103ZF5	0.01 50V	[M]
C701	ECEA0JKA330I	33 6.3V	[M]
C702	ECUVNE104MBN	0.1 25V	[M]
C703	ECEA0JKA101I	100 6.3V	[M]
C704	ECUVNE104MBN	0.1 25V	[M]
C706	ECUV1H272KBN	2700P 50V	[M]
C707	ECUV1E273KBN	0.027 25V	[M]
C710	ECUV1H121KCN	120P 50V	[M]
C711	ECUVNE104ZFN	0.1 25V	[M]
C712	ECUVNE104ZFN	0.1 25V	[M]
C713	ECUVNE104MBN	0.1 25V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C715	ECUV1H272KBN	2700P 50V	[M]
C716	ECUV1H821KBN	820P 50V	[M]
C717	ECUVNE104ZFN	0.1 25V	[M]
C718	ECUVNC224KBN	0.22 16V	[M]
C721	ECUV1H100DCN	10P 50V	[M]
C722	ECUV1H100DCN	10P 50V	[M]
C723	ECEA1AKA221I	220 10V	[M]
C724	ECUVNE104MBN	0.1 25V	[M]
C725	ECUV1H102KBN	1000P 50V	[M]
C726	ECUV1H102KBN	1000P 50V	[M]
C727	ECEA1HPK010I	1 50V	[M]
C728	ECEA1HPK010I	1 50V	[M]
C730	ECUVNE104ZFN	0.1 25V	[M]
C731	ECEA0JKA221I	220 6.3V	[M]
C732	ECEA0JKA221I	220 6.3V	[M]
C733	ECUVNE104MBN	0.1 25V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUVNE104ZFN	0.1 25V	[M]
C736	ECUVNE104ZFN	0.1 25V	[M]
C737	ECUVNE104ZFN	0.1 25V	[M]
C738	ECUV1H103KBN	0.01 50V	[M]
C739	ECUV1H152KBN	1500P 50V	[M]
C742	ECUV1E273KBN	0.027 25V	[M]
C743	ECUVNE104ZFN	0.1 25V	[M]
C744	ECUV1E822KBN	8200P 25V	[M]
C745	ECUV1H102KBN	1000P 50V	[M]
C747	ECUV1H181KCN	180P 50V	[M]
C749	ECUV1H222KBN	2200P 50V	[M]
C750	ECUVNE104MBN	0.1 25V	[M]
C751	ECUVNE104MBN	0.1 25V	[M]
C752	ECUV1H102KBN	1000P 50V	[M]
C753	ECUV1H471KBM	470P 50V	[M]
C754	ECUV1H471KBM	470P 50V	[M]
C802	ECBT1H102KB5	1000P 50V	[M]
C804	ECFR1C104MR	0.1 16V	[M]
C805	ECEA1HU010B	1 50V	[M]
C806	ECEA1HU010B	1 50V	[M]
C817	ECBT1H102KB5	1000P 50V	[M]
C818	ECBT1H102KB5	1000P 50V	[M]
C819	ECBT1H102KB5	1000P 50V	[M]
C820	ECBT1H820KB5	82P 50V	[M]
C821	ECBT1H101KB5	100P 50V	[M]
C822	ECBT1H102KB5	1000P 50V	[M]
C823	ECEA1AU101B	100 10V	[M]
C824	ECBT1H680J5	68P 50V	[M]
C825	ECBT1H820KB5	82P 50V	[M]
C829	ECBT1H102KB5	1000P 50V	[M]
C835	ECBT1H101KB5	100P 50V	[M]
C840	ECBT1H221KB5	220P 50V	[M]
C842	ECBT1H221KB5	220P 50V	[M]
C843	ECBT1H101KB5	100P 50V	[M]
C844	ECBT1H102KB5	1000P 50V	[M]
C845	ECBT1H470J5	47P 50V	[M]
C846	ECBT1H470J5	47P 50V	[M]
C847	ECBT1H102KB5	1000P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C858	ECBT1C103MS5	0.01 16V	[M]
C859	ECBT1H102KB5	1000P 50V	[M]
C864	ECBT1H102KB5	1000P 50V	[M]
C870	ECBT1H102KB5	1000P 50V	[M]
C871	ECBT1H561KB5	560P 50V	[M]
C1001	RCQB2A392KM	3900P 100V	[M]
C1002	ECEA1AU101B	100 10V	[M]
C1003	ECBT1C682MR5	6800P 16V	[M]
C1004	ECBT1H102KB5	1000P 50V	[M]
C1006	ECEA1HU2R2B	2.2 50V	[M]
C1007	ECEA1AU101B	100 10V	[M]
C1008	ECEA1AU221B	220 10V	[M]
C1101	ECBT1C272MR5	2700P 16V	[M]
C1102	ECEA1CU100B	10 16V	[M]
C1103	ECBT0J223MS5	0.022 6.3V	[M]
C1104	ECEA1AU101B	100 10V	[M]
C1106	ECBT1H681KB5	680P 50V	[M]
C1122	ECBT1C332MR5	3300P 16V	[M]
C1201	ECBT1C272MR5	2700P 16V	[M]
C1202	ECEA1CU100B	10 16V	[M]
C1203	ECBT0J223MS5	0.022 6.3V	[M]
C1204	ECEA1AU101B	100 10V	[M]
C1206	ECBT1H681KB5	680P 50V	[M]
C1222	ECBT1C332MR5	3300P 16V	[M]
		CHIP JUMPER	
RJ701	ERJ6GEY0R00V	0 1/10W	[M]
RJ702	ERJ8GEY0R00V	0 1/8W	[M]
RJ703	ERJ8GEY0R00V	0 1/8W	[M]
RJ704	ERJ8GEY0R00V	0 1/8W	[M]
RJ707	ERJ8GEY0R00V	0 1/8W	[M]
RJ708	ERJ8GEY0R00V	0 1/8W	[M]
RJ709	ERJ8GEY0R00V	0 1/8W	[M]
RJ710	ERJ8GEY0R00V	0 1/8W	[M]
RJ712	ERJ8GEY0R00V	0 1/8W	[M]
RJ715	ERJ6GEY0R00V	0 1/10W	[M]
RJ716	ERJ6GEY0R00V	0 1/10W	[M]
RJ721	ERJ6GEY0R00V	0 1/10W	[M]
RJ722	ERJ6GEY0R00V	0 1/10W	[M]
RJ724	ERJ6GEY0R00V	0 1/10W	[M]
RJ727	ERJ6GEY0R00V	0 1/10W	[M]
RJ728	ERJ6GEY0R00V	0 1/10W	[M]
RJ731	ERJ6GEY0R00V	0 1/10W	[M]
RJ732	ERJ6GEY0R00V	0 1/10W	[M]
RJ734	ERJ6GEY0R00V	0 1/10W	[M]
RJ750	ERJ6GEY0R00V	0 1/10W	[M]
		TEST JUMPER	
TJ701	EYF8CU	TEST JUMEPR	[M]

18.4. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		ACCESSORIES	
A1	EUR646553	REMOTE CONTROLLER	[M]
A1-1	UR64EC2112D	R/C BATTERY COVER	[M]
A2	RJA0019-2K	AC CORD (SF)	[M]
A2	RJA0053-2X	AC CORD	[M]
A3	RQT5206-E	O/I BOOK (En/Sp/Sw)	[M]
A3	RQT5207-R	O/I BOOK (Ru/Cz/Po)	[M]
A3	RQT5208-D	O/I BOOK (Ge/It/Fr)	[M]
A3	RQT5209-H	O/I BOOK (Du/Da)	[M]
A3	RQT5210-B	O/I BOOK (En)	[M]

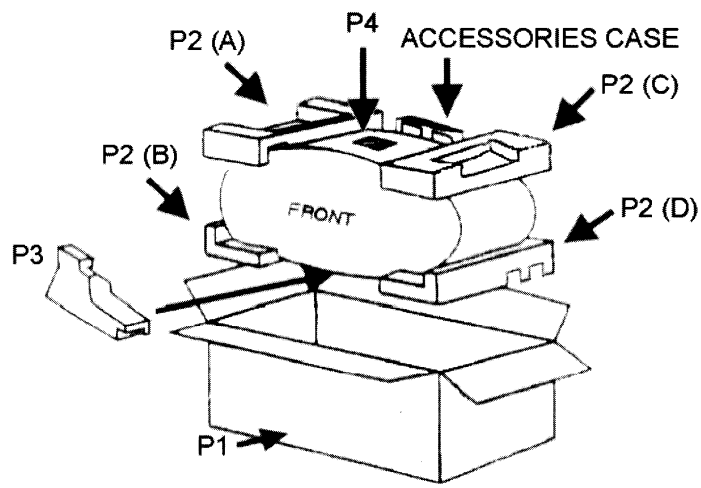
Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX0657	PACKING CASE	[M]E-G
P1	RPGX0658	PACKING CASE	[M]E-W
P1	RPGX0660	PACKING CASE	[M]EB/EG-G
P1	RPGX0661	PACKING CASE	[M]EB/EG-W
P2	RPNX0107	POLYFOAM	[M]
P3	RPNX0108	CENTER POLYFOAM	[M]
P4	RPH0131	MIRAMAT SHEET	[M]

18.5. Packaging

ACCESSORIES CASE

A3 : O/I BOOK

P2
- * P2 (A)
- * P2 (B)
- * P2 (C)
- * P2 (D)



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